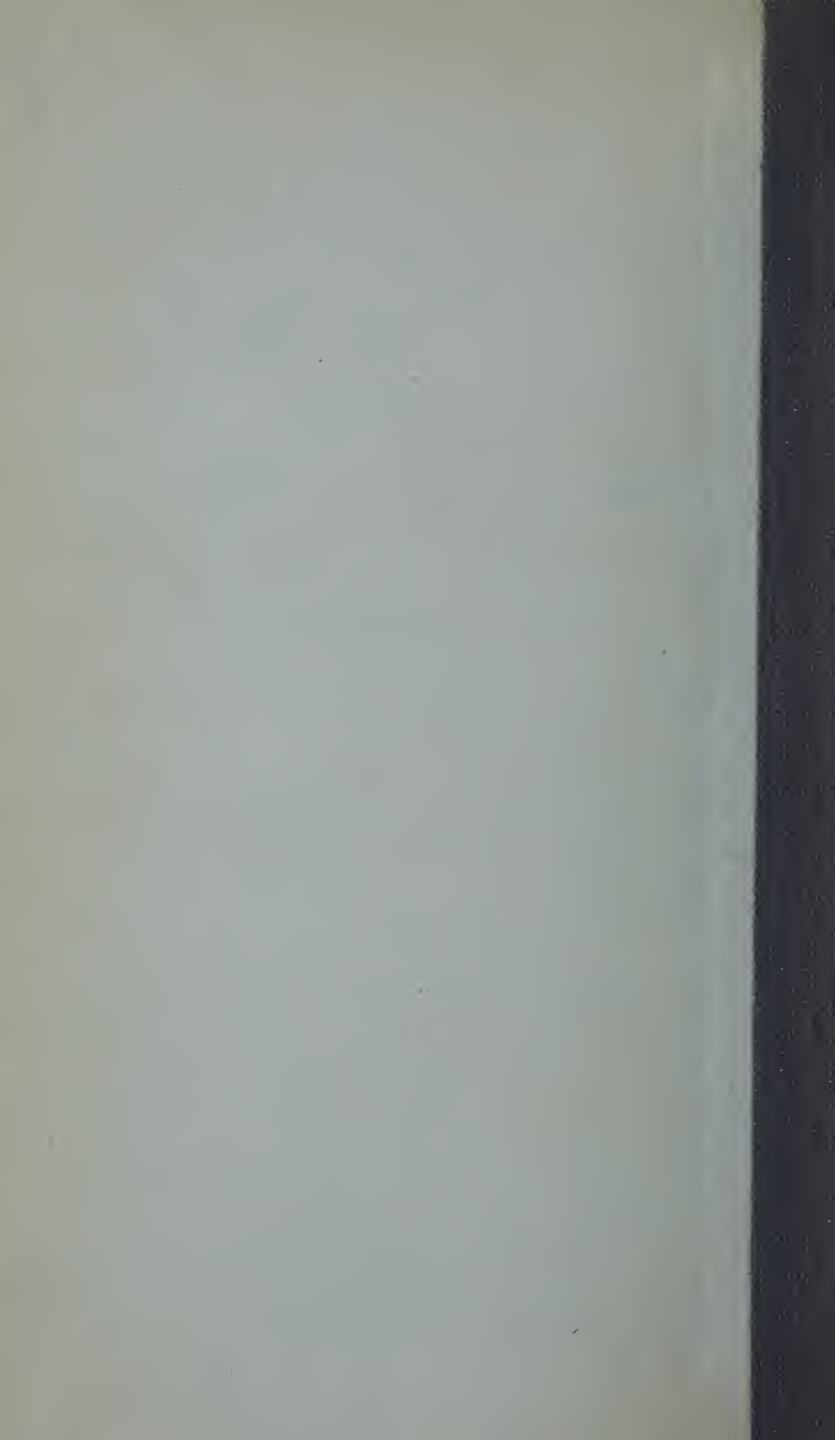


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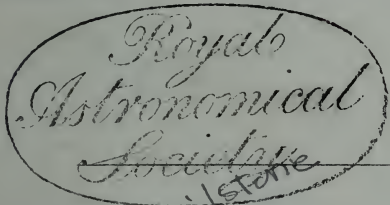
INTO

M. ANTOINE D'ABBADIE'S

JOURNEY TO KAFFA,

IN THE YEARS 1843 AND 1844,

TO DISCOVER THE SOURCE OF THE NILE.



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PREFACE.

UPWARDS of three years ago, M. Antoine d'Abbadie became aware, through his friend Mr. Frederick Ayrton, that I entertained doubts respecting the reality of the journey which forms the subject of the following pages.

Instead of meeting those doubts in an open and candid manner, either by calling on me to substantiate them or by showing them to be unfounded, M. d'Abbadie commenced, in the columns of the *Athenæum*, a series of attacks on me respecting matters, both scientific and personal, which have no relation whatever to the subject of my doubts. These attacks gave rise to a lengthened controversy; which controversy was, after M. d'Abbadie's return to Europe last year, transferred by him from the *Athenæum* to the *Bulletin* of the French Geographical Society, where it is not yet finally closed.

It might, perhaps have been more prudent to have allowed M. d'Abbadie's attacks to remain unnoticed, and merely published the evidence on which my doubts respecting his journey were based. But had I adopted that course, many of the proofs which I can now lay

before the public would not have been at my command, as they have only been elicited by the controversy itself.

It is now, however, time that the real question between M. d'Abbadie and myself should be brought prominently forward. I believe that the journey to Kaffa, alleged to have been performed by him in the years 1843 and 1844, did not take place ; and the reasons for this belief are here submitted to the public, with the conviction that they will be acknowledged to be conclusive.

Being desirous of not keeping up the controversy in the *Athenæum* longer than was absolutely necessary, I refrained from noticing several of M. d'Abbadie's letters inserted in that Journal. Those letters are now given in an Appendix, together with my refutation of their contents ; which, while it will show that great forbearance has been exercised in allowing them to remain so long unanswered, will at the same time afford additional evidence of the little dependence to be placed on that traveller's statements respecting the countries which he professes to have visited.

C. B.

ST. MILDRED'S COURT,

London, October 10th, 1850.

A N E N Q U I R Y ,

&c.

IN the year 1837, MM. Antoine and Arnauld d'Abbadie left Europe, "with the express intention"—as the former has recently asserted, though he says that they at first "kept it a secret"—"of visiting the source of the White Nile, which [they] believed with Bruce to be situated in Kaffa."¹

From that time till very recently, with the exception of some brief intervals, the two brothers were resident in Eastern Africa; and the reports of their proceedings, from time to time received in Europe from the elder of them, M. Antoine d'Abbadie, naturally attracted the attention of geographers and other men of science, and excited a well-founded desire to be made more fully acquainted with the results of so many years' observations and researches in that very interesting portion of the globe.

In the beginning of the year 1845, letters were received, both in France and in England, from M. d'Abbadie, containing many particulars respecting the countries lying beyond Abessinia to the south, and, among them, of the kingdom of Kaffa.²

This country was described by him as being a peninsula surrounded by the river Godjeb, which river he said he had ascertained to be the upper course of the Bahr el Abyad, the direct stream of the Nile, recently explored by the Turco-Egyptian expeditions fitted out by command of the late Mohammed Ali Pasha.³

¹ See M. d'Abbadie's declaration to that effect in the *Athenæum* of January 27th, 1849, No. 1109, page 93.

² See *Athenæum*, No. 906, p. 242; No. 911, p. 360; No. 918, p. 542; *Bulletin de la Société de Géographie*, 3rd Series, vol. iii. pp. 52, 133,

311; *Nouvelles Annales des Voyages*, 1845, vol. i. pp. 260, 365; vol. ii. pp. 107, 218.

³ See D'Arnaud, in *Bulletin*, 2nd Series, vol. xviii. p. 367; vol. xix. pp. 89, 445; Werne, *Reise zur Entdeckung der Quellen des Weissen Nil* (Berlin, 1849), *passim*.

Had M. d'Abbadie's intelligence stopped here, it would have been but little more than a confirmation of what I myself had learned, while in Southern Abessinia in February, 1843, from an intelligent native merchant named 'Omar ibn Nedjât; whose map, giving a similar course to the Godjeb and making that river a tributary but not the head stream of the Bahr el Abyad, was exhibited by me to the Royal Geographical Society of London on the 13th of November of that year,¹ and was subsequently published in that Society's Journal.² But M. d'Abbadie's announcement went much further. He stated that, in the year 1843, he had actually succeeded in penetrating to Enárea, and thence into Kaffa by crossing the Godjeb—or Nile, as he asserted it to be—within only two days' journey, or about thirty miles distance, from its source.³

It is certainly not a little surprising that the traveller, when so near the interesting spot which he says he had then been upwards of six years in search of, should have neglected or abstained from visiting it, and should have contented himself with merely repeating to the scientific world the meagre details which he had picked up among the inhabitants of the country. From the information, however, thus obtained, the source of the Godjeb, which is held sacred by the natives of Kaffa and at which they yearly offer up a solemn sacrifice, is described as being "a small spring, issuing from the foot of a large tree of the sort which serves in Ethiopia for washing cotton cloths. To the right and to the left are two high hills, wooded to the summit, called Boshi and Doshi,"⁴ in a district named Gandjès, in the country of Gimiro or Gamru, adjoining Kaffa. And in furnishing these particulars, M. d'Abbadie expresses the opinion that, as "it is an historical fact that, prior to the sixteenth century, the Arabs were in constant communication with the countries of Hárrargie and Dáwaro, they probably derived from thence their information respecting the source of the Nile; and that, in speaking of the two mountains of Gandjès, they may have said the mountains of *Gamru* (Djabal al Qamr);"⁵ and, inasmuch as the Arabic word *gamr* or *qamr* signifies *moon*, he conjectures that "hence arose the curious error of the *Mountains of the Moon*."⁶

M. d'Abbadie's hypothesis respecting the Godjeb has already been discussed by me in various communications made to the

¹ See *Journal of the Royal Geographical Society*, vol. xiii. p. 255; *Nouvelles Annales des Voyages*, 1846, vol. iii. p. 225.

² Vol. xvii. part 1.

³ *Bulletin*, vol. iii. p. 313; *Nouv. Ann.* 1845, vol. ii. p. 112.

⁴ *Ibid.* 1845, vol. ii. p. 112.

⁵ *Ibid.* p. 113.

⁶ *Ibid.* *Bulletin*, vol. iii. p. 315

scientific world; and I believe I have demonstrated that this river is not the upper course of the Nile, or Bahr el Abyad, explored by the Turco-Egyptian expeditions, but merely that of the Sobat, Telfi, Bahr el Makádeh, or River of Habesh, one of the principal tributaries of the Nile, which joins the main-stream in about $9^{\circ} 20'$ north latitude; and I have also adduced reasons for the opinion entertained by me, that the Nile itself comes from the unknown regions beyond the Equator, where Mr. Rebmann has lately discovered the snowy mountain, Kili-mandjáro,¹—forming, as I conceive, a portion of the snow-capped Mountains of the Moon,—τὸ τῆς Σελήνης ὄρος—in which the sources of the Nile were placed, as early as the second century of our era, by the Alexandrian geographer, Ptolemy.²

I shall not, however, enter here into any investigation of the general subject; it being my intention to confine myself to an enquiry into the circumstances of the journey to Enárea and Kaffa, which M. d'Abbadie has publicly asserted he performed in the years 1843 and 1844.

When the news of this journey first reached Europe, I at once saw reason to entertain doubts as to the correctness of several points connected with it. These doubts, instead of becoming weaker, were much strengthened when, in the course of the year 1846, while engaged in preparing the materials for my "Essay on the Nile and its Tributaries,"³ I had occasion to examine the various details of this journey published both in England and France. And since that time M. d'Abbadie's further statements, especially with reference to a second journey to Enárea alone said to have been performed by himself and his brother in the years 1845 and 1846, have supplied such a mass of evidence, as not only to satisfy me of the unreality of the former journey, but to warrant me in submitting to the judgement of the scientific world the objections to that journey which I now feel it to be my duty to make.

These objections may be classed under four distinct heads:—

1. The insufficiency of the time requisite for such a journey and for the various circumstances alleged to have attended it.

2. The repeated anomalies and contradictions in the traveller's statements at different periods as to matters alleged

¹ See *Church Missionary Intelligencer*, vol. i. *passim*.

² *Geographia*, lib. iv. cap. 9.

³ Printed in the *Journal of the Royal Geographical Society*, vol. xvii. pp. 1-84.

to have been ascertained not from oral information but from personal knowledge.

3. The errors and discrepancies in his recorded astronomical and geodetical observations, and the difficulties which they present.

4. The care with which the first journey to Enárea and Kaffa—the earlier and far more important of the two, and therefore the more deserving of notice—has been since kept out of sight; while the later and less important journey to Enárea alone has been brought prominently forward and made to supersede it.

FIRST OBJECTION.—*Insufficiency of Time.*

It was on the 6th of March, 1843, on my arrival at the town of Máhhdera Máriam in Biégamidr, a province of Central Abessinia, on my return from the peninsula of Godjam where I had been resident upwards of fifteen months, that I met M. d'Abbadie, then on his way for the first time into Godjam to join his brother, who had been some time there. On the following morning he left Máhhdera Máriam for Godjam, taking the road by which I had just arrived.

Of M. d'Abbadie's movements during some time after his departure from Máhhdera Máriam on March 7th, 1843, I cannot find any traces. But in a letter professing to have been written from Sakka in Enárea on the 16th of September of the same year, he announced his arrival in that kingdom, and stated that the journey thither from the town of Yejúbbi, in the south of Godjam, near which town the great market of Baso is held, had occupied him "more than two months,"¹ and that at the date of his letter he had been resident in Sakka "nearly two months"² more. The two periods together therefore may fairly be taken to be equal to four calendar months; so that he must have commenced his journey from Yejúbbi about the middle of May, and arrived at Sakka towards the end of July, 1843. For the present it is sufficient to bear in mind these two dates.

On his second visit to Enárea in 1845, M. d'Abbadie remarked³ that it is important for a traveller to take the precaution of obtaining an invitation from the king of that country; "as an invitation implies liberty to return," and that monarch is "in the habit of retaining all strangers [who are] not merchants." It is, however, not the less certain that on his

¹ *Bulletin*, vol. iii. p. 53.

² *Ibid.* p. 59.

³ *Athen.* No. 1041, p. 1056.

alleged first journey to that country our prudent traveller could not have taken this precaution; for, as he only arrived in the north of Godjam in the month of March, 1843, there was not possibly sufficient time for him to have announced himself to the king of Enárea and have obtained an invitation from him, before his departure from Baso in the south of the same province by the middle of May. Towards the end of July, 1843, therefore, he must have presented himself at the court of Abba Bógibo, an uninvited and unexpected guest. Under such circumstances, it was not unreasonable for the rash traveller to anticipate a fate similar to that of Pedro de Covilham, the first European who visited Abessinia in the fifteenth century, who went and never returned; namely, that he would die, like him, in Ethiopia.¹ Accordingly in a letter dated from Sakka, October 19th, 1843, when he must have been resident there nearly three months, we find him complaining that he was "retained (*retenu*) in that country;"² and in another communication stating more explicitly that he "had wished to return to Godjam *with the November caravan*, only Abba Bógibo would not let him go."³

Down to the month of November, 1843, therefore, M. d'Abbadie was still a prisoner in Enárea. The date and manner of his departure from that country are nowhere mentioned by him. But in a letter written after his return to Godjam, he states that "in the month of December"⁴ of that year he "crossed the Godjeb, between Yigga and Kankatti,"⁵ at a distance of at least seventy geographical miles from Sakka, on his way into the kingdom of Kaffa. And as the map⁶ shows the spot at which he thus passed the Godjeb to be beyond the kingdom of Djimma-Kaka, the king of which, Abba Djifár, is the powerful enemy and rival of Abba Bógibo, king of Enárea, (the two princes being continually at war with each other,⁷) it is manifest that M. d'Abbadie had to pass through this hostile country of Djimma-Kaka before he could have reached the Godjeb.

From all these facts—as for the sake of argument we must assume them to be—derived from the correspondence of M. d'Abbadie himself, it results clearly:—1st. That that traveller, who, in November, 1843, was detained by the king of Enárea and prevented from returning to Godjam, did nevertheless,

¹ *Bulletin*, vol. iii. p. 65.

² *Ibid.* p. 67.

³ *Revue de l'Orient*, cited in the *Ausland* of December 26th, 1846, No. 360, p. 1438.

⁴ *Athen.* No. 918, p. 542; *Nouv. Ann.* 1845, vol. ii. p. 219.

⁵ *Ibid.*

⁶ Facing the Title-page.

⁷ Compare *Athen.* No. 1042, p. 1078, with the *Journal of the Royal Geographical Society*, vol. xiii. p. 259; and see Appendix I. page 41.

in or previously to the month of December of the same year, obtain that monarch's permission to depart; and not merely so, but also the special favour of permission to enter the hostile country of Djimma-Kaka—a circumstance quite contrary to the usages and customs of those nations and their rulers. 2ndly; He must have traversed the kingdom of Djimma-Kaka without being molested or detained by Abba Djifār, notwithstanding that he was the first European who had ever ventured into his dominions, and that he had come without invitation after having been several months the guest of that king's enemy and rival—all which again is most unusual in that part of the world. And 3rdly; All this must have taken place *by the end of December*, at the very latest.

It must appear strange to the scientific world that M. d'Abbadie should not have favoured it with any particulars of his residence in Kaffa, a country which had never before been visited by any European, and that he should not even have mentioned the length of his stay there. He must, however, have remained in that kingdom several months. For, in one of his letters we are told that, "when proceeding to Kaffa, as the waters were high, [he] crossed the Godjeb on a suspension-bridge made of *lianes*;"¹ but that "when returning [he] waded across the stream,"² its "greatest depth being about 1·2 *mètre*,"³ or four English feet; which proves that a considerable time must have elapsed between the two events, so as to have allowed the waters of the river to fall. And, indeed, in another letter, in which some lengthened and minute details are given respecting the Godjeb and its numerous tributaries, the traveller states that "it required *several months' labour on the spot* to disentangle the elements of the vast basin"⁴ of that river, and also that he made various astronomical and geodetical observations in Kaffa and especially at Bonga, its capital;⁵ all which must of course have been the work of considerable time.

When and how he quitted Kaffa M. d'Abbadie has also left a secret. But we cannot sufficiently admire the forbearance of the monarch of that country, Kamo by name, who, following the example of his neighbour of Djimma-Kaka, Abba Djifār, appears not to have thought of detaining the first adventurous

¹ *Athen.* No. 906, p. 243.

² *Ibid.*

³ *Ibid.* No. 918, p. 542. *Nouv. Annales*, 1845, vol. ii. p. 219. M. d'Abbadie says in another place, that "at the ford between Djimma and Woratta [a country adjoining

Kaffa], the waters of the Godjeb, even during the dry season, reach as high as the chest."—*Bulletin*, vol. iii. p. 63.

⁴ *Bulletin*, vol. iii. p. 317.

⁵ *Ibid.* p. 314. See also vol. xii. p. 152.

European that ever could boast of having "trod on Kaffa ground"¹—conduct to be fully appreciated by those alone who have travelled in Africa. However, leave Kaffa it appears he did; and after wading through the Godjeb and again traversing the hostile country of Djimma-Kaka without hindrance from its monarch, we find him voluntarily placing himself again in the power of the same tyrannical ruler of Enárea who had kept him so many months a prisoner before. And this second time he tells us he was detained by Abba Bógibo so long, that it was "only by threatening measures of retaliation on the part of [his] brother, who with a well-armed troop was ready to arrest, in Godjam, until [his] return, all the Limmu [*i. e.* Enárea] traders,"² that he at length succeeded in getting out of that prince's hands.

Unfortunately we have not been made acquainted with the precise dates of any of these extraordinary events. But an attentive examination of the traveller's correspondence will provide us with the means of determining very exactly *the period within which* they must all have taken place—these and others too, as will appear in the sequel, not less extraordinary. For, in one of his letters, containing the results of various observations made by him in Abessinia, he fixes the date at which he had already returned to Godjam from his Enárea and Kaffa journey, by saying:—"On the 9th of April, 1844, I observed these two thermometers [wet-bulb and dry-bulb] at the height of one *mètre* above the surface of the Abai or Blue River, at the ford of A'muru."³

As, however, it was at or near the ford of Gúderu, named Melka-Furi, where the direct caravan road from Enárea to Baso market passes the river, that M. Arnauld d'Abbadie must have been encamped with his well-armed troop, ready to retaliate on the merchants of Abba Bógibo's country for the detention of his brother; it might naturally have been expected that M. d'Abbadie's first and most anxious thought would have been to relieve his brother from further anxiety on his account and enable him to strike his tents, and that he would consequently have hurried to him by the direct and shortest road by Melka Furi. Instead of which, the traveller seems to have quite forgotten both that his brother was expecting him, and also that a straight line is the shortest distance between two points. For we find him taking a circuitous route on his way back from Enárea, through the territories of unknown princes and tribes,

¹ *Athen.* No. 1042, p. 1,078.

³ *Nouv. Ann.* 1845, vol. iv. p. 109.

² *Ibid.* No. 1041, p. 1056.

who, in conformity with Galla customs, would have been sure to retard his progress with all sorts of obstacles; and even when he had managed to get free from these and had reached the ford of A'muru, which (as it will be perceived by the map) lies at a distance of about sixty geographical miles westward from Melka-Furi, he is there occupied in making meteorological and other¹ experiments, among which that on the patience of his exemplary brother must have been far from being the most insignificant. As to the motives for this eccentric course, M. d'Abbadie, as usual, leaves us in the dark.²

But to return. Though we thus possess direct evidence of the presence of M. d'Abbadie at the ford of A'muru on the 9th of April, 1844, the precise date of his arrival at that spot is not indicated. But from a desire to afford him all the time possible for his return journey from Enárea to Godjam, it shall be assumed that it was not till the very day on which he made the experiments adverted to that he reached the ford of A'muru. If, then, we consider the time which he had occupied in performing the *direct* journey from Baso to Enárea by the caravan road to have been, as stated, "more than two months,"³ we may, without fear of falling into any material error, assign a similar period, at the least, for his return by the circuitous and unfrequented road from Sakka to the ford of A'muru. Consequently, we may fix the departure of M. d'Abbadie from Enárea, on his way back to Godjam after his second captivity, as early as at the beginning of February, 1844.

But on the hypothesis that M. d'Abbadie crossed the Godjeb on his way into Kaffa towards *the end of December*, 1843, and that he finally quitted Enárea on his return to Godjam *in the beginning of February*, 1844, there would remain only one month (that of January) for his stay in Kaffa,—his several months' labour on the spot in disentangling the elements of the vast basin of the Godjeb,—his return through Djimma-Kaka,—and his arrival in Enárea and second detention by Abba Bogibo, with its attendant difficulties, and negociations and communications with

¹ See *Athen.* No. 918, p. 542; *Nouv. Ann.* 1845, vol. ii. p. 219. M. d'Abbadie says here—doubtless from an oversight—that he crossed the Godjeb on his way to Kaffa "in the month of December, 1842," instead of December, 1843; and that he crossed the ford of A'muru "in April, 1843," instead of April, 1844. But, of course, in an under-

taking like that of M. d'Abbadie, it is no easy task to remember everything.

² In a recent communication (see page 32, *post*) M. d'Abbadie states that the King of Enárea "*hastened* to send [him] back to Abéssinia." How is this to be reconciled with the facts above mentioned?

³ See page 4, *ante*.

his brother, some 120 miles distant. As it would manifestly be absurd to comprise all these things in *one month*, we will assume, though this hypothesis is attended with equal difficulties, that M. d'Abbadie quitted Enárea on his way to Kaffa in the month of *November*, 1843, immediately after (or even before) the departure of the Baso caravan which he had been desirous of accompanying back to Godjam; and that, by means known to himself alone and not yet made public, he was enabled to traverse the territories of Abba Djifár and reach the Godjeb with a rapidity of which we can have no conception, so as to have crossed that river by the suspension-bridge between Yigga and Kankatti on *the very first day* of the month of December. Still this would give him only *two months*—namely, between December 1st, 1843, and February 1st, 1844—for all his adventures, difficulties and delays in Kaffa, Djimma and Enárea. And yet his “several months’ labour on the spot” necessarily implies a residence of “several months” in Kaffa; and this is corroborated by his account of the very different state of the waters of the Godjeb at the two different seasons of the year at which he says he crossed that river.

M. d'Abbadie is evidently in a dilemma; from which it is not possible to extricate him even by supposing that it was on the 1st of March, instead of on the 1st of February, that he made his second escape from the hands of Abba Bógibo; by which supposition he would acquire a latitude of *three months*—namely, from December 1st, 1843, to March 1st, 1844—between the date of his first passage of the Godjeb into Kaffa and that of his second departure from Enárea. For he would then have *only one month* and nine days—from March 1st to April 9th—to overcome all the difficulties and delays of the journey by the unfrequented route between Sakka and the ford of A'muru, which must inevitably have occupied a much longer time; while even the entire three months—from the 1st December to March 1st—would still be insufficient for all the events connected with the Kaffa episode and the second captivity in Enárea.

In coming to a conclusion on the subject, it must be borne in mind that travelling in Africa is not like travelling in Europe. The obstacles and delays to which a traveller is subjected at almost every step are quite beyond the conception of such as have never experienced them. M. d'Abbadie, when speaking of the first portion of this very journey to Kaffa, says:—“Though a person may easily go on foot from Baso to Sakka *in five days*, yet it took me *more than two months* to perform this little journey, of which the difficulties, the annoyances and the sufferings exceeded anything I had ever undergone on the least frequented

roads of Abessinia.”¹ So, too, on another occasion he says, “Among the Gallas I negotiated *during six months*, but in vain, for permission to make a station [for geodetical purposes] on Mount Amhára.”² And on his second journey to *Enárea alone*, he tells us that his stay in the countries to the south of the Abai was protracted “to the enormous space of *seventeen months*.”³ No one, indeed, can bear stronger testimony than M. d’Abbadie himself does to the fact of “the *peculiar* difficulties of travelling among the Gallas;”⁴ and when we consider that all these Gallas are inveterate slave-takers, slave-holders and slave-dealers, and that from M. d’Abbadie’s alleged excessive sensitiveness on this head, though he “often strove to contract at least a semblance of friendship with dealers in human flesh,” yet “it would not do;”⁵ we can (if we are to believe him) well imagine how those difficulties would have been much greater in his case than in that of a traveller not possessing the same scruples of conscience.

It is useless, then, to strive to accommodate and reconcile dates and occurrences which are utterly irreconcilable. We have, on M. d’Abbadie’s own distinct avowal, “the month of December, 1843”—the day of the month is not very material—for his first crossing of the Godjeb on his way into Kaffa, and we have “the 9th of April, 1844,” for his passage of the Abai at the ford of A’muru on his return; and between these two dates it is in vain to think of heaping together such a multiplicity of events and circumstances as would indubitably have occupied any traveller upwards of a twelvemonth—if, indeed, his detention by one of the monarchs through whose dominions he passed for the first time, or some other not less disagreeable event, had not precluded their accomplishment altogether.

SECOND OBJECTION.—*The anomalies and contradictions in M. d’Abbadie’s statements at different periods, as to matters alleged to have been ascertained, not from oral information, but from personal knowledge.*

On his first journey, after a lengthened and laborious investigation of the elements of the vast basis of the river Godjeb made “on the spot,” M. d’Abbadie described “the Oshko or Baqo [Bako], which goes through Seka, the country of the Mashango,”⁶ as being a tributary of the Godjeb; and he stated that its source was situate “in the interior of the great

¹ *Bulletin*, vol. iii. p. 32.

² *Ibid.* vol. ix. p. 99.

³ *Athen.* No. 1041, p. 1058.

⁴ *Athen.* No. 1105, p. 1330.

⁵ *Ibid.* And see Appendix I. p. 48.

⁶ *Bulletin*, vol. iii. p. 317.

curve [of that river], at a day's journey [15 miles] from Bonga,"¹ the capital of Kaffa, where, as it has been seen, he had long resided. On his second journey, however, the Bako became all at once the lower course and main-stream of the Godjeb itself,² and all notice of its separate source near Bonga was unaccountably dropped.³

So too, on the first journey the Baro was said to be "a tributary on the right bank of the Godjeb;"⁴ but after the second journey it was stated not less explicitly that "the Baro and Bako do *not* join the Godjeb on the right side."⁵

Again, the Kusaro-Gibbe, of which the source "near Gera"⁶ was said to have been visited by the traveller on his way to Kaffa in 1843,⁷ was then described by him as "joining *the Godjeb* to the west and *south-west of Bosha*;"⁸ but in his maps sent to Europe in 1847 after his second journey⁹ this river is made to join the Omo or Bórora *far above the confluence of the Godjeb*, and to the *north-east of Bosha*.

Further, in his letter dated Sakka, September 16th, 1843, M. d'Abbadie identified "the *Nilus* of the ancients with the Baro, whose source, like that of the Dödösa [Dedhésa], is in Motcha, in about 6° north latitude;"¹⁰ but in his last maps he places the source of the Dedhésa close to that of the Gibbe of Enárea, in 8° north latitude, almost due south of Sakka, and at a distance from that "capital," of *only twenty miles*.¹¹ And as from the accompanying map¹² it will be seen that the source of the Dedhésa, as thus placed, is almost directly on the road between Enárea and Kaffa, it is manifest that M. d'Abbadie must of necessity have passed close by it, on his way to the latter country in 1843. Nevertheless, in a letter professing to have been written *after his return from Kaffa*, he described the source of the Dedhésa as lying "nearly under the eighth parallel

¹ *Bulletin*, vol. iii. p. 317.

² *Athen.* No. 1042, p. 1077.

³ In M. d'Abbadie's last map inserted in vol. xii. of the *Bulletin*, the lower course of the Godjeb is now called Paco, and the Bako is made to retake its place as a tributary of that river, with a course from north-east to south-west; all of which is quite irreconcilable with the results previously obtained by him.

⁴ *Bulletin*, vol. iii. p. 314.

⁵ *Athen.* No. 1042, p. 1077.

⁶ *Ibid.* No. 1105, p. 1330.

⁷ *Bulletin*, vol. ix. p. 115.

⁸ *Athen.* No. 906, p. 243.

⁹ *Ibid.* No. 1042, pp. 1077, 1080; *Bulletin*, vols. ix. and xii. In one of his sketch maps inserted in the *Athenæum* (No. 1042), M. d'Abbadie gives the names Baqo and Baca to the lower course of the Uma. And yet in a recent number of the *Bulletin* (vol. xii. p. 154), he has not scrupled to assert that *Baka* is "not the name of a river, as *M. Beke* imagines!" A *fac-simile* of M. d'Abbadie's map is given in Appendix II. page 47.

¹⁰ *Bulletin*, vol. iii. p. 63.

¹¹ *Ibid.* vols. ix. and xii.

¹² Facing the Title-page.

of latitude, and *at a distance of seventy-five miles from Sakka*, which is the capital of Enárea¹."

Again, as to Sakka itself: as M. d'Abbadie was resident in that place from July to November, 1843, and was likewise detained there some indefinite period after his return from Kaffa in the beginning of 1844, he could not have failed to become well acquainted with it. We have seen him, in the passage just cited, style it "*the capital of Enárea*;" and in another of his letters, he describes it as being "the principal 'bourg,' in which are seen the ruins of a Sidáma [*i. e.* Christian] church."² In commenting on this latter passage on a former occasion,³ I made use of the English word *town* as the equivalent of the French expression *bourg*. To this M. d'Abbadie has demurred, saying that "the French word *bourg* does not mean *town* . . . but has a more indefinite meaning, like the English *borough*."⁴ He would however have been nearer the truth, had he said that it is the word *borough* which has a more *definite* meaning; inasmuch as a borough is "a town with a corporation." Still, whether this "capital of Enárea" be a borough or only a town, M. d'Abbadie, on his second visit to Sakka, described it as being "nothing more than a straggling hamlet or village."⁵ And this is not the last of the metamorphoses which that unfortunate place is made to undergo. In the latest and more explicit notes of the traveller even this "straggling hamlet or village" has disappeared, and in its stead we find nothing but a mere *temporary* assemblage of huts occupied by the traders frequenting the market of Enárea; for we are now told that "when the caravan is gone, most of the Sakka huts are taken down; and on the arrival of a fresh one, huts are bought and carried sometimes from the distance of several miles."⁶

Such variations in the assertions of M. d'Abbadie at different periods would be perfectly natural and intelligible, if they were to be regarded as merely the results of native oral information, imperfectly expressed and not always correctly understood, collected by him in Godjam among the traders at the market-place of Baso, where I had previously myself obtained much valuable information respecting the countries of Enárea and Kaffa in 1842 and 1843. But they are altogether inexplicable, if the earlier statements of the traveller, not less than the later ones, are to be taken as the enunciation of facts, of which the knowledge

¹ *Nouv. Annales*, 1845, vol. ii. p. 109.

² *Bulletin*, vol. iii. p. 56.

³ *Athen.* No. 1044, p. 1127.

⁴ *Athen.* No. 1105, p. 1330. And see Appendix II. page 50.

⁵ *Ibid.* No. 1042, p. 1077.

⁶ *Ibid.* No. 1105, p. 1331; and see Appendix II. pages 50, 51.

was acquired by himself in person, during a journey actually made to Enárea and Kaffa, as stated, in the years 1843 and 1844.

But this is not all. On his first journey, after having been settled nearly two months at Sakka on the banks of the river Gibbe, which river has since his second journey been made to supersede the Godjeb as the head-stream of the Nile, M. d'Abbadie stated that "the Göbe [Gibbe] flows into the Indian Ocean,"¹ and expressed the opinion that the Omo, of which the Gibbe is an affluent, "is probably identical with the Djöb [Juba] river, which falls into the Indian Ocean under the Equator."² Such an opinion would, in like manner, have been perfectly reasonable and intelligible as the result of *oral information obtained in Godjam*; but it is utterly inconceivable that an intelligent European, who had undertaken such a journey as that alleged to have been performed by M. d'Abbadie for the express purpose of discovering the source of the Nile, should have remained several months on the banks of this river, which he now affirms to be the head of the true Nile, with his eye resting every morning on its source in the forest of Bábia,³ and yet should not have entertained a suspicion of having there before him what he had gone so far and undergone so much in search of.

As some of these objections were, with several others, advanced by me in the *Athenæum*⁴ as long ago as November 1847, and M. d'Abbadie has since professed to answer them in the same Journal,⁵ I may give the following specimen of the character of his reply.

My Objection.

In a letter dated A'dowa, the 14th of October, 1844, (*Bulletin*, iii. 135; *N. A. des Voy.* 1845, i. 264,) written after his return from Kaffa, M. d'Abbadie said,—"J'avais l'intention de vous envoyer une esquisse de ma carte de Saka à Bonga, avec les lieux à droite et à gauche, fixés par renseignement; mais je viens de m'apercevoir que je l'ai oubliée à Gondar." In his present letter of the 5th of August, 1847, he says,—“In October, 1844, I came down from Gondar to the coast of the Red Sea, in order to replenish my purse, and send a few letters to Europe. . . . *My letters were just gone when I attempted, with six observed latitudes and a great deal of oral information, to*

His Answer.

I am as liable to oversights as many others, but Dr. Beke ought to have chosen a better case in order to prove my frailties. In speaking of a map, sketched not in Gondar but in Saka, comprising the country between Saka and Bonga, I had said, rather ambiguously it is true, that I wished to add to it places established by

¹ *Bulletin*, vol. iii. p. 54.

² *Ibid.* p. 55.

³ See *Athen.* No. 1041, p. 1057.

⁴ No. 1044, p. 1127.

⁵ No. 1105, p. 1330.

*sketch a map of Great Damot' My various notes were scarcely brought together, when I perceived that the basin of the Borora or Umo was much larger than that of the Gojab; and the idea that I had misled geographers in a matter of this importance so tormented me, that I resolved to retrace my steps to Inarya, visit, if possible, the actual source, and add to my previous and insufficient azimuthal angles a sufficient number of new ones to make the position of the famous sources a mathematical deduction from that of Gondar."*² It is strange that, before sending off his letters from Massówa, M. d'Abbadie was not enabled to perceive this *from the map which he had previously made at Gondar*, and left behind him there.

oral evidence. But even had my French phrase, quoted by Dr. Beke, meant that my hearsay information had been already penned down right and left, the words "*à droite et à gauche*," do not inevitably imply that I had extended my information to the left bank of the Omo, or recognized fully the existence and dimensions of all its affluents.³

All I need say respecting this "answer" is that it is a mere evasion of the question.

We have been told⁴ that the express object of M. d'Abbadie's journey to Abessinia and of his many years' stay in that country, was to visit the source of the Nile, which he believed, with Bruce, to be in Kaffa. And we have seen⁵ that, when he was only thirty miles off the source of the Godjeb, at the foot of the "large tree" between Mounts Boshi and Doshi, in the country of *Gamru*, which he then believed to be the source of the Nile in the Djebel el *Gamar* or Mountains of the Moon, he did *not* visit it. We are told also, in his letter of August 5th, 1847, just cited, that as soon as he had dispatched to Europe intelligence of his supposed discovery of the source of the Nile, he found out that he had grossly misled geographers, and that thereupon he immediately set out for Enárea; thus leaving them in the dark for a couple of years, when a short note placed before starting in the hands of M. Degoutin, the French consular agent at Massówa, would have explained his mistake and prevented them from being misled. And we see, lastly, that the result of his second journey deprives the sacred fountain of the Godjeb in the mountains of Gamru of the honour which he himself had attributed to it, and substitutes in its stead the unknown source of one of the branches of the Gibbe of Enárea, in the forest of Bábia, but in no mountains at all.

For the sake of argument it shall be assumed that the traveller

¹ Comprising, of course, the country laid down in the "esquisse de sa carte de Saka à Bonga."

² See *Athen.* No. 1041, p. 1056.

³ The italics are as in the original

remarks, both of M. d'Abbadie and myself.

⁴ Page 1, *ante*.

⁵ Page 2, *ante*. And see Appendix II. p. 52.

was warranted in this gratuitous substitution. But then a question arises which is well deserving of a remark.

In speaking of his second residence at Sakka¹ in 1845 and 1846, during a period of four months, M. d'Abbadie expressly states that his "eye rested every morning on the forest of Bábia and the sources of the Enárea Gibbe."² Of course the same must have been the case during the four or five months of his previous residence at the same place, from July to November, 1843. And as, further, the source of the Gibbe is placed by him due south of Sakka,³ he must, on his journey to Kaffa in the month of December of the same year, and on his return to Enárea at some unascertained period anterior to the 9th of April, 1844, have passed close by this source, even if he did not actually visit the spot itself; so that its position must have been sufficiently determined in "the sketch of his route from Sakka to Bonga,"⁴ which he had prepared at Sakka and left behind him at Gondar when he wrote from A'dowa.⁵ It must, therefore, be confessed that his return from Massówa on the coast of the Red Sea all the weary way to the source of the Gibbe in Enárea,—a distance of 600 geographical miles at the very least,—for the sole purpose of revisiting a spot on which his eye had already rested during several months, and by which he had already twice passed in going to and returning from Kaffa, would have been a work of supererogation without parallel in the annals of geography.

As it is my intention to confine myself to the examination of M. d'Abbadie's first journey to Enárea and Kaffa in the years 1843 and 1844, I shall not investigate the particulars of the second journey to Enárea alone in 1845 and 1846 further than is rendered necessary by its bearings on the former journey.

However, it must be observed, that the description of the upper course of the Gibbe given by M. d'Abbadie even after his return from his *second* journey, and the position attributed by him to the source of that river, are quite at variance with what we are told respecting the same points by his predecessor Fernandez.

The description which this missionary gives of the Gibbe, under the name of Zebee, as recorded in the pages of Father Balthezar Tellez, is, that "it rises in a country named Bosha,"⁶

¹ In the *Athenæum* printed "Jaka."

² *Athen.* No. 1041, p. 1057.

³ *Ibid.*

⁴ *Bulletin*, vol. iii. p. 135.

⁵ See page 13, *ante*.

⁶ With respect to the position of Bosha, see page 11, *ante*.

in the kingdom of Enárea; and that, after running a few leagues towards the west, it turns to the north and passes round the kingdom of Gingiro [properly Yángaro or Djándjaro], of which it forms a peninsula, in like manner as the Nile [*i. e.* the Abai] makes one of the kingdom of Godjam; after which it leaves that kingdom and takes its course towards the south.”¹ In M. d’Abbadie’s maps,² however, while the peculiar spiral course attributed by him to the Gibbe of *Enárea* corresponds, to a certain extent, with that attributed by Fernandez to the Zeebe; the course of the Kúsaro-Gibbe of Djimma, *which M. d’Abbadie identifies with the Zeebe*,³ does not correspond with it at all.

When, on a former occasion, I alluded to this discrepancy,⁴ M. d’Abbadie contented himself with replying—“I am at a loss to understand Dr. Beke’s argument relating to the Zeebe crossed by A. Fernandez in 1613; and I still retain my opinion that *one of these*⁵ *was the Kusaro*, which could not be avoided in going from Enárea to the Djándjaro without a devious and useless circuit round its source *near Gera*.”⁶ But Fernandez expressly states that the source of the Zeebe is *in Bosha*! And on a comparison of Fernandez’s description with that given by M. d’Abbadie, it is difficult to arrive at the conclusion that the Kúsaro-Gibbe of Djimma, *which runs from west to east at some distance from the southern frontier of Enárea*, is the Zeebe of the former traveller which was twice crossed by him,—the first time *on the eastern frontier of Enárea*, between that kingdom and Djándjaro, and the second time *on the eastern frontier of Djándjaro*, between it and Cambate, a country adjoining Gurágie.

It is only necessary to compare the account of the journey of the Portuguese Missionary, of which an abstract has been given by me in the seventeenth volume of the Journal of the Royal Geographical Society of London,⁷ with M. d’Abbadie’s most recent maps inserted in the Bulletin of the Geographical Society of Paris,⁸ to be satisfied of the impossibility of reconciling them with one another.

¹ *Historia de Ethiopia a Alta*, pp. 21, 310.

² *Bulletin*, vols. ix. and xii.

³ *Ibid.* vol. iii. p. 135; *Nouv. Ann.* 1845, vol. i. p. 263. And see *Athen.* No. 906, p. 243.

⁸ *Athen.* No. 1044, p. 1127.

⁵ I cannot comprehend the expression “one of these.”

⁶ *Ibid.* No. 1105, p. 1330. And see page 11, *ante*.

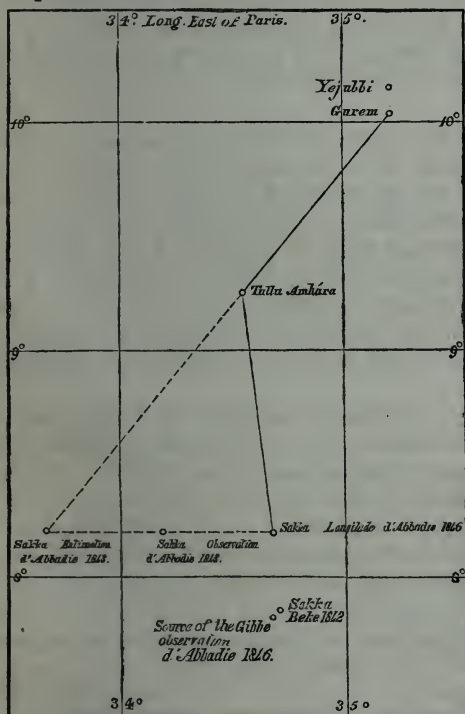
⁷ Pp. 55—57.

⁸ Vols. ix. and xii. And see the map facing the Title-page of the present Work.

THIRD OBJECTION.—*Errors and discrepancies in M. d'Abbadie's recorded astronomical and geodetical observations, and the difficulties which they present.*

In his account of his first journey to Enárea, M. d'Abbadie stated that on the road he passed "close to Tullu Amhára,¹ an isolated and remarkable peak, which, seen from the promontory of Gurem, near the town of Yejúbbi (Baso), bears true N. $219^{\circ} 30'$ E."²—which may be more intelligibly expressed as S. $39^{\circ} 20'$ W. And he added that he placed "Tullu Amhára in $9^{\circ} 15'$ north latitude from an observation made at the Lagga (river) Amhára" close by, and "in $34^{\circ} 33'$ longitude east of Paris by estimation."³

I fortunately possess the means of testing the accuracy of the position thus attributed to Tullu Amhára. In my map in



the fourteenth volume of the *Journal of the Royal Geographical Society*, Yejúbbi is placed in latitude $10^{\circ} 8' 45''$ N., and in longitude $37^{\circ} 32' 30''$ east of Greenwich, equal to $35^{\circ} 12' 8''$ east of Paris. It is so marked in the accompanying diagram, in which I have further laid down Gurem as being situated at about seven miles south of the former place. My reason for so doing is, that, as it will be seen, a line drawn from Tullu Amhára in the direction mentioned by M. d'Abbadie of S. $39^{\circ} 20'$ W. (or more properly speaking N. 39°

¹ "The mountain of the Amharas" or Christians. I was told in Godjam, that on this mountain are the remains of a palace built by the emperor Yásu

Talah, or Joshua the First, whence it derived its name.

² *Bulletin*, vol. iii. p. 54.

³ *Ibid.* p. 55.

20' E.) cuts the meridian of Yejúbbi precisely at the point thus attributed to Gurem, which may consequently be considered as its true position.

In my map in the thirteenth volume of the same *Journal* the bearing of Tullu Amhára from Gurem, as thus placed, corresponds precisely with that attributed to it by M. d'Abbadie; and it will also be seen that the caravan route to Sakka is marked on the map as passing close by that mountain. So far, therefore, M. d'Abbadie and I agree. The only difference on the subject existing between us is that I have estimated Tullu Amhára to be in latitude $8^{\circ} 57' N.$, or eighteen miles further south than he places it. But as I had not an opportunity of seeing the peak,—which, even with that traveller's shorter measurement, must be more than sixty geographical or seventy statute miles distant from Gurem,—and as I only estimated its position from oral information obtained at Yejúbbi and the neighbouring town of Yaush, I am far from pretending to accuracy in this particular. The difference is, however, of no great moment.

After having passed by Tullu Amhára and ascertained its position, as he states, from an observation made at the Lagga Amhára, M. d'Abbadie arrived at Sakka, of which place he, as a scientific traveller, lost no time in ascertaining the position. And, as he already possessed a fixed point in Tullu Amhára, and as the distance between the two places is so small, it is evident that the approximate determination of the correct position of Sakka could not have been a matter of difficulty, even for a traveller not making any pretensions to scientific acquirements.

The following is M. d'Abbadie's account of his proceedings:—"The want of ephemerides having hitherto prevented me from calculating my observations of longitude made at Sakka, I have provisionally placed this town one degree to the west of the meridian of the source of the Abai, which Bruce has fixed in $34^{\circ} 40'$ east of Paris."¹ (It should be more correctly $34^{\circ} 35' 8'' E.$, but so a small difference is not material.) This provisional estimation, it should be observed, is not at all to be regarded in the light of a mere rough guess on insufficient data, but as the deliberate conclusion of a practised astronomer, after having made various observations both for latitude and longitude on the spot, with a view to the accurate determination of its precise position. It will therefore not fail to strike the reader with astonishment when he learns that this estimation is erroneous to

¹ *Nouv. Ann.* 1845, vol. ii. p. 110.

the extent of not less than one entire degree of longitude. For, as it will be shown in the sequel,¹ the longitude of Sakka, as resulting from various laborious operations said to have been performed by M. d'Abbadie on his second journey to that place in 1845 and 1846, is in fact $34^{\circ} 40'$ instead of only $33^{\circ} 40'$ east of Paris—that is to say, Sakka is on about the same meridian as the source of the Abai, instead of being “one degree to the west” of it. And this “estimation” having been made at Sakka *after the position of Tullu Amhára had been correctly determined*, it follows that the error bears entirely and exclusively upon the distance between those two places. In other words, on a distance of $1^{\circ} 2' 30''$ or $62\frac{1}{2}$ miles of latitude, there is an error of one whole degree of longitude, equal in that parallel to about 59 geographical miles! And this egregious mistake is made by a geometrician provided with geodetical and astronomical instruments of the first quality, and boasting of having “planted [his] theodolite in upwards of 200 stations in Ethiopia.”²

In order to render the error thus fallen into by M. d'Abbadie more palpable and appreciable, I will suppose an analogous case in our own country, though it is not very easy to find, within the narrow limits of England, a tract of country sufficiently extensive for the purpose. An Irish engineer, let us suppose, after having planted his theodolite in more than 200 stations in his native island, comes over to England, where he has occasion to lay down the road from Great Grimsby in Lincolnshire to Reading in Berkshire, by the way of Leicester; the position of the two latter towns being, under the supposition, unknown to him. Provided with all proper instruments, he first goes from Great Grimsby to Leicester, and determines its position with accuracy; and he thence proceeds to Reading, where he makes all the necessary observations, but without having an opportunity of calculating them. Under such circumstances, is it conceivable that this engineer could, even on the roughest estimation, commit the mistake of placing Reading in the position of Bristol? And yet, if we only change the names, and, instead of Great Grimsby, Leicester and Reading, read Gurem, Tullu Amhára and Sakka, our engineer will have done in England precisely what M. d'Abbadie has done in Southern Abessinia.

It is true that the prudent traveller takes the precaution of explaining that “many of [his] angles do not cross³ properly; and any man of science on viewing them can not suppose that

¹ Page 21, *post*.

² *Athen.* No. 1044, p. 1129.

³ Printed “crop” in the *Athenæum*.

all these observations are mere inventions.”¹ But, assuredly, the veriest tyro in trigonometry would be incapable of committing so gross an error as this, subtending as it does an angle of *forty-four degrees*! And without for a moment supposing all M. d’Abbadie’s observations to be mere inventions, it may, under the circumstances, be allowable to show how an observer might possibly “invent” those at Tullu Amhára and Sakka without moving a step beyond Yejúbbi or Gurem.

The process, which is a very simple one, is as follows:—The position, in latitude and longitude, of Gurem being known, this place would first be marked on the map. Then, the bearing of Tullu Amhára from Gurem having been *noticed*,—we can scarcely say *observed*, on account of its distance, which precludes any accurate observation,—and its distance having been estimated, there would be no difficulty in placing this mountain also on the map. Its latitude might then be noted down as if observed, and its longitude as if estimated on the spot. In the next place, it being well known at Yejúbbi and Gurem that Sakka lies *beyond* Tullu Amhára, and that the road thither passes close by that peak, nothing would be more natural, in the absence of more precise information, than to suppose that the road beyond Tullu Amhára continued onwards in the same direction as before reaching that mountain. Under this supposition, the following mode might be adopted to determine the position of Sakka. By ascertaining, from oral information, its approximate distance from Tullu Amhára or from Yejúbbi, we should be enabled to decide as to its latitude; and then its longitude might be fixed by merely continuing the line of the road from Gurem, beyond Tullu Amhára, but in the same direction, as far as the assumed parallel of Sakka.

All this has, in fact, been done in the above diagram; in which, having *assumed* the latitude of Sakka to be $8^{\circ} 12' 30''$ N., and having then continued the diagonal line between Gurem and Tullu Amhára southwards, it will be seen that this line cuts that parallel precisely in $33^{\circ} 40'$ E.—M. d’Abbadie’s estimated longitude!

Nothing would now remain to be done but to note down the latitude of $8^{\circ} 12' 30''$ N. as having been *observed at Sakka* (subject to “corrections,” &c.), and the longitude of $33^{\circ} 40'$ E. as having been *estimated on the spot*.

The above process will have shown how easy it would be to place Sakka in its estimated but erroneous longitude of $33^{\circ} 40'$ East of Paris, without having been there at all. And, in like

¹ *Athen.* No. 1044, p. 1129.

manner, the instance of the Irish engineer will have shown how difficult it would have been—if not impossible—for M. d'Abbadie, after having correctly determined the position of Tullu Amhára, to have attributed that erroneous longitude to Sakka from any “estimation” made on the spot.

I now come to the consideration of the observations for longitude said to have been made at Sakka, the results of which differ so widely from the “estimation” which has formed the subject of the foregoing remarks.

By his letter dated Sakka, September 16th, 1843,¹ M. d'Abbadie forwarded to Paris a note of several lunar distances alleged to have been observed at that place, which, having been calculated by M. Daussy, gave a mean result of $34^{\circ} 11' 38''$ E. —or better $34^{\circ} 18' 36''$ E., rejecting one which was presumed by M. Daussy to be erroneous in the reading off.² So that the difference between the *observed* longitude and that originally *estimated* ($33^{\circ} 40'$ E.) is $38' 36''$; a difference which is certainly greater than might have been looked for on the part of an astronomer aiming at such great precision in his observations and calculations. It is, however, unnecessary to dwell on this point, inasmuch as the results of M. d'Abbadie's second journey are much more discordant.

We are here told that the source of the Bora, the principal head-stream of the Gibbe of Enárea, has been connected by azimuthal angles with Gondar, and that the result is $34^{\circ} 38'$ east of Paris, for its longitude;³ and Sakka being found to lie “due north of the source,”⁴ it follows that the longitude of this town is, in like manner, $34^{\circ} 38'$ E. At the same time, one of several sets of lunar distances observed at Sakka itself, is said to give $34^{\circ} 42' 24''$ E.⁵ Taking then the mean of these two results, we have $34^{\circ} 40'$ east of Paris (within a small fraction) for the longitude of Sakka, as determined on the second journey.

But this result, independently of its being one whole degree of longitude from the original “estimated” position of Sakka ($33^{\circ} 40'$ E.), is as much as $21' 24''$ from the mean of the observations on the former journey. Between the means of the “lunars” themselves, the difference is not less than $23' 48''$; and taking their extremes, but rejecting the one thrown out by M. Daussy, the difference is $55' 54''$; while, including the latter, it would be $1^{\circ} 26' 24''$. The subject will be rendered more

¹ *Bulletin*, vol. iii. p. 57.

² *Ibid.* vol. iv. p. 231.

³ *Athen.* No. 1041, p. 1058.

⁴ *Ibid.* By mistake “source” is printed “Soura.”

⁵ *Ibid.*

intelligible by the following Table, in which the several observations of the first journey are compared with the means of the first and second journeys respectively.

Mean of Observations on the First Journey— $34^{\circ} 18' 36''$ E.

Mean of Observations on the Second Journey— $34^{\circ} 42' 24''$ E.

| | Observations on the First Journey. | Differences from the mean of the First Journey. | Differences from the mean of the Second Journey. |
|----------|--|---|--|
| 1st Set. | $34^{\circ} 48' 30''$ | $+0^{\circ} 29' 54''$ | $+0^{\circ} 6' 6''$ |
| | $34 \quad 30 \quad 45$ | $+0 \quad 12 \quad 9$ | $-0 \quad 11 \quad 39$ |
| | $33 \quad 55 \quad 0$ | $-0 \quad 23 \quad 36$ | $-0 \quad 47 \quad 24$ |
| | $33 \quad 46 \quad 30$ | $-0 \quad 32 \quad 6$ | $-0 \quad 55 \quad 54$ |
| 2nd Set. | $34 \quad 36 \quad 15$ | $+0 \quad 17 \quad 39$ | $-0 \quad 6 \quad 9$ |
| | $34 \quad 25 \quad 0$ | $+0 \quad 6 \quad 24$ | $-0 \quad 17 \quad 24$ |
| | $1 \quad 33 \quad 16 \quad 0?$ | $-1 \quad 2 \quad 36?$ | $-1 \quad 26 \quad 24?$ |
| | $34 \quad 16 \quad 45$ | $-0 \quad 1 \quad 51$ | $-0 \quad 25 \quad 39$ |
| | $34 \quad 10 \quad 0$ | $-0 \quad 8 \quad 36$ | $-0 \quad 32 \quad 24$ |

From this table it will be perceived, that the individual observations stated to have been made on the first journey range symmetrically—half *plus*, half *minus*,—round a point which now turns out to be not the true position of the place at all; while, with one exception, they all lie (and some very far) to the west of the truth. I will ask what the probabilities are that such a result was obtained from a series of *genuine* observations.

It may be urged, by way of apology, that M. d'Abbadie is in reality but an indifferent observer; and that, with all his boasting of his excellent instruments, he does not understand their proper adjustment. But, unfortunately, even such an excuse is not available; for I have been assured by a most competent judge that he is thoroughly acquainted with the handling (at least) of the most complicated instruments; and he himself expressly states that the observations in question were made with a "Gambey's *reflecting circle* divided on platina,"² the effect of the use of such an instrument being to diminish considerably, if not to nullify, the errors both of the instrument and of the observer.

Without going further into the consideration of the observations of longitude, I will merely remark, that M. d'Abbadie appears not to have known in 1843 that the road beyond Tullu

¹ Assumed by M. Daussy to be an error in the reading off, and therefore not included in the means.

² *Bulletin*, vol. iii. p. 58; vol. ix. p. 98.

Amhára, instead of continuing onwards to Sakka in its previous direction of $S. 39^{\circ} 20'$ west, turns round somewhat to the eastward of south, as is shown in the above diagram and also in the map in Volume XIII. of the *Journal of the Royal Geographical Society*.¹ Subsequently, however, he would seem to have become aware of the fact; and hence we find him correcting his previous error, by placing Sakka first in $34^{\circ} 18' 36''$, and eventually, by means of various operations, in $34^{\circ} 38'$ and $34^{\circ} 42' 24''$ E.

Nevertheless, in order to make these corrections, it was not necessary to have proceeded all the way to Sakka, either for the purpose of connecting that place with Gondar by means of azimuthal angles, or of observing lunar distances on the spot; inasmuch as almost precisely the same result might have been obtained without so much as crossing the Abai, either at Melka Furi or at Melka Abro. I will endeavour to explain this with a view of showing how accurate information may be obtained in a way too much despised or neglected by professed scientific travellers.

In my map above adverted to, the town of Yejúbbi is approximatively placed in $37^{\circ} 23' 30''$ longitude East of Greenwich, and Sakka thirty miles to the West of the meridian of Yejúbbi. This is quite right as regards the position of Sakka relatively to the former place; only as, at the time when that map was drawn, the larger one of my routes in Abessinia, since inserted in the fourteenth volume of the *Journal of the Royal Geographical Society*, was not completed, the precise position of Yejúbbi, and consequently that of Sakka, could not be definitively settled. In this larger map, however, Yejúbbi is placed in $37^{\circ} 32' 30''$ East of Greenwich, which is equal to $35^{\circ} 12' 8''$ East of Paris; whence it results that the longitude of Sakka, as determined by me in Godjam in 1842 and 1843, is $34^{\circ} 42' 8''$ East of Paris. Now, remarkably enough, this result differs only $4' 8''$, or a fraction more than four miles, from the longitude of the same place as determined by M. d'Abbadie in 1845 and 1846 by means of azimuthal angles connecting it with Gondar;—it is only $1' 56''$, or less than two miles, from the exact mean ($34^{\circ} 40' 12''$) of the scientific operations so carefully performed by him for the purpose of ascertaining the true position of the source of the Gibbe;—and, lastly, it is no more than $16''$, or just one quarter of a mile, from the result of his last set of lunar distances observed at Sakka. And yet, so far from pretending to have made any observations at Sakka, I never

¹ And see the Map facing the Title-page.

was nearer to that place than Melka Furi, the ford of the Abai near Yejubbi, a distance from Sakka of upwards of one hundred geographical miles; and my estimation of the longitude of this town, accurate as it now appears to be, is nothing but the result of oral information furnished by the natives, and especially by the merchants who trade between Baso and Enárea.

Those who have never had an opportunity of testing the value of native oral information, may, from this instance respecting the position of Sakka, form an idea of the accuracy of the results which it is possible to obtain from such a source alone, when the materials are judiciously collected and carefully collated. Another instance shall be adduced in the position of the source of the Godjeb. In my map of the 20th of November, 1843, inserted in Volume XIII. of the Royal Geographical Society's *Journal*, this source is laid down in $7^{\circ} 20'$ North latitude, and in $70'$ of longitude West from Sakka. In M. d'Abbadie's letter dated Massówa, November, 1844, being a twelvemonth later, in which he announced that he had crossed the Godjeb within about thirty miles of its source, he stated that its position was in $7^{\circ} 25'$ North latitude and $80'$ West of Sakka;¹ being a difference between us of only five miles of latitude and ten miles of longitude. And yet my nearest point of approach to the spot, on the 31st of December, 1842, was Mabil in Shínasha, near Melka-Abro, the ford of A'muru at which M. d'Abbadie made his meteorological observations on the memorable 9th of April, 1844, which place is 180 geographical miles distant from the source of the Godjeb.

It may, however, be objected that if M. d'Abbadie's journey to Kaffa be apocryphal, no great value is to be attached to his determination of the position of the source of the Godjeb as corroborative of my own. But to this I reply—and the same remark extends to the whole of his allegations with respect to his personal observations—that even if untrue, and therefore worthless as facts within his own personal knowledge; still, as the results of information obtained from intelligent natives who really were acquainted with the facts, their coincidence with results derived from totally independent sources imparts to them a value, to which otherwise they might not have any claim. I admit, however, the doubt that must always exist as to whether the native information itself is faithfully reported.

I will now proceed to the consideration of the latitude of Sakka, as determined by M. d'Abbadie.

Observations for this purpose are so easy and of so simple a

¹ *Nouv. Ann.* 1845, vol. ii. p. 113; 1846, vol. ii. p. 230.

a nature, that any common navigator with the most ordinary instruments is competent to make them with sufficient accuracy for all practical purposes. Consequently, there ought not to exist any room for question in those of a traveller professing to be an experienced astronomer, and using an excellent reflecting circle, or even a good sextant constructed by Gambey.¹

On the occasion of his first journey to Enárea, M. d'Abbadie expressed himself thus:—"My hut in Sakka is in $8^{\circ} 12' 30'$ North latitude, the star observed *not having been corrected for aberration and nutation.*"² Much as we had a right to expect accuracy on the part of the observer, it is difficult to refrain from smiling at this amusing pretension to scrupulous minuteness, which is useless in practice, and which—to repeat the remark of an astronomer of eminence on my mentioning it to him—is "very like using a lower-deck gun to shoot snipes."

From my inability to make the necessary "corrections," or from some other cause yet to be explained, my estimated latitude of Sakka does not altogether coincide with that observed with such unusual precision by M. d'Abbadie; for, in my map,³ I place this town in $7^{\circ} 51' N.$, which shows a difference between us of as much as $21' 30''$ —being $3' 30''$ more than the difference with respect to the latitude of Tullu Amhára. Nevertheless, I hope that eventually this difference will gradually disappear; and that for the following reason. In the account of his second journey, M. d'Abbadie, through some inexplicable negligence, omits to mention the latitude of Sakka. But, on the other hand, he does state that the source of the Gibbe is in $7^{\circ} 49' 48'' N.$;⁴ which, while it places that spot very close to my estimated position of Sakka, ($7^{\circ} 51' N.$) makes it to be as much as $22' 42''$, or rather more than 26 statute miles, away from that town as placed by him. We are further told that "the latitude [of the source] agrees well, by even [plane ?] angles from Sakka and Goruqe, with that resulting from angles pencilled on a circumferentor;"⁵ and, again, that during "five months," from the "door of [his] little hut in Sakka," his "eye rested every morning on the forest of Bábia and the sources of the Enárea Gibbe."⁶ The meaning of all which, if I rightly understand it, is that M. d'Abbadie was able to measure plane (?) angles with his theodolite, and to pencil corresponding angles on his circumferentor, of a spot on which, notwithstanding its distance of upwards of twenty-six miles, his eye had rested during five months. It is, however,

¹ *Bulletin*, vol. iii. p. 57.

² *Ibid.* p. 56.

³ *Journ. Roy. Geogr. Soc.* vol. xiii.

⁴ *Athen.* No. 1041, p. 1058.

⁵ *Ibid.* p. 1058.

⁶ *Ibid.* p. 1057.

due to M. d'Abbadie to state that he admits that "these figures may undergo a trifling change when [he] shall have discussed all his azimuthal angles."¹

Under these circumstances, I may therefore be permitted to believe that Sakka is nearer to the source of the Gibbe than the observation for latitude at the former place would make it; and I confidently anticipate that the "correction for aberration and nutation," and the "discussion of his azimuthal angles," which the learned traveller intends making, will eventually result in *a sensible amount of error*, so as to permit the position of his "little hut in Sakka" to be shifted so far southwards, as to bring it more distinctly within sight of the source of the Gibbe in the forest of Bábia than it assuredly is at a distance of twenty-six miles, even in the clear atmosphere of the highlands of Eastern Africa.²

FOURTH OBJECTION.—*The care with which M. d'Abbadie's first journey to Enárea and Kaffa, with its results, has since been kept out of sight; while the second journey to Enárea alone, has been brought prominently forward and made to supersede the other.*

"In spite of my ill-health, resulting from a very fatiguing journey performed under circumstances altogether exceptional even in Ethiopia, I hasten to inform you that, on the 19th of January, 1846, my brother and I succeeded in planting the tri-coloured flag at the principal source of the White Nile!"³—such is the song of triumph in which the traveller announced to the Academy of Sciences of Paris the glorious event which had at length crowned the scientific labours of himself and his brother during a residence indefinitely prolonged in Eastern Africa, and their many wearisome and dangerous expeditions undertaken, as alleged, with the sole object of discovering the source of the Nile.⁴ Yet, if the solution of this great geographical problem was from the outset the constant and exclusive object of all their thoughts and all their labours, or even if their desire was merely to "plant the *French* flag at this source which [they] had been nine years in search of,"⁵—it certainly is not very intelligible why M. d'Abbadie should, during the first five years of his sojourn in Eastern Africa, have restricted his explora-

¹ *Athen.* No. 1040, p. 1058.

² According to the *last* accounts, the distance is only 20' or about 24½ statute miles! See page 35, *post*.

³ *Comptes Rendus de l'Académie*

des Sciences de Paris, vol. xxv. p. 485.

⁴ See page 1, *ante*.

⁵ *Comptes Rendus*, vol. xxix. p. 657.

tions to *Northern* Abessinia; and why, previously to the commencement of the year 1843, he should have passed a great part of his time in going backwards and forwards between Massówa on the coast of the Red Sea and Gondar; while his brother, on the other hand, proceeded without loss of time into Godjam, and there entered the service of Dedjach Goshu, the ruler of that province and now the Ras or Vizir of the Empire, a personage whom he was in the habit of styling his "prince and master," and by whom, as it is stated, he has been raised to the exalted dignity of "Grand Marechal!"¹

But, after all, what is the occurrence for which M. d'Abbadie takes to himself so much credit? In the exploration of unknown countries, unquestionably, every mile that a traveller succeeds in penetrating further than those who have preceded him may legitimately be regarded as a victory gained by him, though it may be no defeat to them. On the other hand, should an explorer undertake a journey which falls short of one previously accomplished by another traveller,—and, *a fortiori*, should he not reach the point which he himself had previously attained,—such a result can only be looked on in the light of a failure. What real merit then can M. d'Abbadie claim for having, in January, 1846, visited and even planted the flag of his "chosen" country² at "the source of the Gibbe, in the forest of Bábia on the southern frontier of Enárea,"³—a spot on which, in the year 1843, his eye had rested during several months, and by which and far beyond which, he had already passed on his journey into Kaffa?⁴ Independently of this, Kaffa is a country in which no European ever pretended to have set foot before M. d'Abbadie himself; and the title of its *discoverer* and first explorer is one which surely ought to have been sufficient to gratify the ambition of the most adventurous traveller. Enárea, on the contrary, was visited more than two centuries ago by an intelligent European, Father Antonio Fernandez, who has given us an account, though brief, of his journey to that country and even beyond it;⁵ so that a subsequent journey thither by another traveller can only be looked on as a "reconnaissance," not as a discovery.

Considering these things, the desire manifestly evinced by

¹ See *Bulletin*, vol. vii. p. 274.

² M. Antoine d'Abbadie, or Mr. "Anthony Thomson D'Abbadie" as he called himself and signed his name when in England in 1839, has lately made the following declaration:—"My brother Arnauld and myself were born in Dublin—we left

Ireland under eight years of age—and we are Frenchmen by education, fortune, and choice."—*Athen.* No. 1109, p. 93.

³ *Comptes Rendus*, vol. xxix. p. 657.

⁴ See page 15, *ante*.

⁵ See D'Almeyda, *Historia de Ethiopia a Alta*, p. 314, *et seq.*

M. d'Abbadie to suppress this most important journey to Kaffa, and to substitute for it the more recent, less distant, less difficult, less interesting, and in every respect much less important one to Enárea alone, appears to be more conclusive against the reality of the former journey than any other argument that has yet been adduced.

The preceding pages were written, in substance, upwards of a year and a half ago, but I had no suitable opportunity of making them public.

In the interval M. d'Abbadie has published two Papers; the one, entitled "*Note sur le haut fleuve Blanc*," printed in the twelfth volume of the *Bulletin* of the Geographical Society of France,¹ and the other, styled "*Résumé des Voyages faits par MM. Antoine et Arnould d'Abbadie*," inserted in the twenty-ninth volume of the *Comptes Rendus* of the Academy of Sciences of Paris.²

The perusal of these two Papers, so far from having induced me to retract a single tittle of my objections, has, on the contrary, afforded me both additional arguments and more powerful reasons for retaining my doubts of the genuineness of M. d'Abbadie's alleged first journey to Kaffa.

Besides this, the remarks made by him in his *Résumé* have given rise to a suspicion which, however strange it may appear, is in my mind so strong as to lead me to think that I can discern, even through the veil of mystery in which the matter is at present enveloped, *a reply by way of anticipation* to the objections which have already been here made. I could say more on this subject, and might perhaps be able to point out how what I had written respecting M. d'Abbadie became known to him. But this might be out of place here. All that I will say is, that whoever the individual may be who so intended to render M. d'Abbadie a service, he has, on the contrary, done him an irreparable injury. He has caused to be placed on record, by way of explanation, statements which tell against his friend even more than anything that has yet been adduced from his previous communications to the public.

I will briefly go through these explanatory statements in the order of the objections to which they seem intended to reply.

I. For the purpose of meeting my first objection grounded on the insufficiency of time requisite for the journey to Kaffa and back,³ M. d'Abbadie now calls into being a new solution of his

¹ Pp. 144—161.

² Pp. 654—657.

³ See page 4, *ante*.

difficulties, in the shape of a body of one thousand men at arms ! It will be remembered that, previously to the month of December, 1843, M. d'Abbadie had been for some time the prisoner of Abba Bógibo, king of Enárea,¹ whom he only a short time back styled his "royal friend" and would not permit to be disparaged in any way,² but whom he now describes as "a despot dreaded by all the tyrants who surround him in those regions of despotism."³ The following is a literal translation of that portion of M. d'Abbadie's present narrative, which relates to his first escape from the hands of this tyrant :—"For ten years past, the king of Kaffa had promised his sister in marriage to the king of Enárea. The ardent imagination of these semi-savages having related to the former monarch the wonders of my mysterious life, his curiosity was at length excited, and he refused to give the betrothed [to her promised husband] unless I went to fetch her. It was, therefore, in the midst of an escort of a thousand warriors that I visited a portion of Kaffa."⁴

The first thing that must strike every one here is, the extraordinary fact that such an extraordinary occurrence should never have been mentioned before. However, if the fact be only admitted, no one will think of denying that, with such an armed force, M. d'Abbadie might have been able, like M. Douville in his "*Voyage au Congo*,"⁵ to surmount all the obstacles opposed to him and all the delays inseparable from a journey in the interior of Africa;—to cross rivers without the aid of suspension-bridges;—to break through all "formalities on the frontiers of Kaffa;"—and even to traverse, without fear of stoppage, the hostile territories of Djimma-Kaka. Still, all the armies in the world have it not in their power to control the course of the seasons, or to command the waters of rivers to rise and fall at their pleasure ; and our traveller, whose memory is in general not so good as it ought to be, has evidently forgotten his previous statement, that, when he passed the Godjeb in the month of December, 1843, on his way into Kaffa, *as the waters were high*, he crossed the river on a suspension-bridge formed of *lianes*; but

¹ See page 5, *ante*.

² See Appendix I. p. 41.

³ *Comptes Rendus*, vol. xxix. p. 656.

⁴ *Ibid*.

⁵ That famous traveller, who received the large gold medal of the Geographical Society of Paris and was made a foreign honorary member of the Royal Geographical Society of London, on account of a

journey into the interior of Equinoctial Africa *which had never taken place*, only professed to have been accompanied by a body of 460 men.—See his *Voyage au Congo*, vol. iii. p. 1. His flagrant imposition on the scientific world was exposed by Mr. Cooley in a masterly article in the *Foreign Quarterly Review*, vol. x. pp. 163—206.

that, on his return, he *waded across the Godjeb*, of which the greatest depth was then only about four feet.¹ He seems also to have forgotten that, only as late as September 10th, 1847, he wrote as follows:—"But it may well be supposed that the interminable formalities on the frontiers of Kaffa lengthen the journey by a day; *as is the case with all merchants, and as it happened to myself between Sadara and Bonga.*"² M. d'Abbadie had better have trusted to his escort of *merchants*, even with their slower rate of travelling and their day's detention on the frontiers of Kaffa.

And now that this army of 1000 men has been raised for the purpose of fetching the Princess of Kaffa, it remains yet to be explained how it happened that her royal brother, "Gaésharoch Kamo," who had withheld her *during ten years* from her anxious but most patient lover,—the "despot dreaded by all the tyrants who surround him in those regions of despotism,"—and who at length only consented to part with her on being honoured with a visit from "the mysterious stranger," should have allowed himself to be so suddenly deprived of the society of two individuals whom he evidently so much valued. For sudden indeed must have been their parting, or M. d'Abbadie could never have reached the ford of A'muru by the 9th of April, 1844.³ Besides which, it has to be explained why, on M. d'Abbadie's arrival in Enárea with the long-looked-for bride, his "royal friend" should have been so ungrateful as to make him again a prisoner⁴ for his pains.

II. Under the head of my second objection, I have remarked⁵ that M. d'Abbadie's return from the shores of the Red Sea to Enárea, solely for the purpose of again feasting his eyes with the sight of a spot on which they had previously rested during several successive months, and by which he had already twice passed on his way to and from Kaffa, would have been a feat as useless as unprecedented. It now seems that M. d'Abbadie himself is conscious of the insufficiency of such a motive for his second journey to Enárea; and, hence, in his *Résumé* submitted to the Academy of Sciences of Paris, he assigns reasons for that journey totally at variance with those placed on record, in the year 1847, in the *Athenæum* in England and in the *Bulletin* of the Geographical Society of France.

In order that these different statements at different times may be fully appreciated, I will place them under one another.

The first is that in the *Athenæum*, and it is as follows:—

¹ See page 6, *ante*.

² *Bulletin*, vol. xii. p. 153.

³ See page 7, *ante*.

⁴ *Ibid*.

⁵ Page 15, *ante*.

Omokullu, [near Massówa,] August 5th, 1847.—In October 1844 I came down from Gondar to the coast of the Red Sea, in order to replenish my purse and send a few letters to Europe. I then announced that I had proved, by a variety of oral testimony [not a word now of his journey thither] that Kaffa is a peninsula (a *χῆσος* of old) encircled by the upper course of the White Nile, and that the main branch of this mighty river is the Godjeb, called Gódafo, or Gódapo, by the people of Kaffa. *My letters were just gone when I attempted*, with six observed latitudes and a great deal of oral information, *to sketch a map of Great Damot. . . . My various notes were scarcely brought together, when I perceived that the basin of the Borara or Umo was much larger than that of the Godjeb*; and the idea that I had misled geographers in a matter of this importance so tormented me, that I resolved to retrace my steps to Enárea, visit if possible the actual source, and add to my previous and insufficient azimuthal angles a sufficient number of new ones to make the position of the famous sources a mathematical deduction from that of the Gondar.—*Athenæum*, No. 1041, of October 9th, 1847, p. 1056.

The second statement was made to the Geographical Society of France, and is to the following effect:—

Gola, Agáme (Abessinía), September 10th, 1847.—In writing three years ago to the *Journal des Débats*, I described the source of the Godjeb as being that of the White Nile. Having written this letter *I went to Gondar, where I set to work to prepare* with the help of my multifarious information [here too not a word of his journey to Kaffa,] *a sketch of the course of the Uma. My brother and I perceived that the basin of this river was much larger than that of the Godjeb*; and rather than make you acquainted with our doubts, we resolved to visit Great Damot, separating from one another, so as to be able to verify at the junctions of the several rivers their respective sizes. We came to this resolution with much regret, for we were pining to revisit France[!] Unfortunately, we could not carry out the whole of our plan, in consequence of two Englishmen [*i. e.* Messrs. Bell and Plowden] having, in a most extraordinary manner, attacked and fired on the tribe of Nunnu, who form a portion of Djimma-Rare. . . . After this, not only did it become impossible for us to set foot in Djimma-Rare, but Europeans generally were proscribed by most of the independent Gallas. We were therefore obliged to content ourselves with visiting the principal source, and establishing its pre-eminence by means of oral information.—*Bulletin*, vol. ix. pp. 110, 111.

In this second statement, though made little more than a month after the one published in England, there is already no slight variation. The preparation of the map, which according to the English statement had been attempted when his “letters were just gone” to Europe from “the coast of the Red Sea,” is in the French statement said to have been deferred till after his return to Gondar, where (as the reader will bear in mind¹) he had left behind him the map which had been drawn at Sakka many months previously, but which had failed to show the great error that *now, for the first time*, presented itself to the mind, not only of himself but of his brother. We will, however, let these

¹ See page 13, *ante*.

discrepancies pass, especially as the two statements agree in the one main point; namely, that it was in the year 1844, while still in Abessinia and before undertaking his second journey to Enárea, that M. d'Abbadie detected his error respecting the Gódjeb, and resolved in consequence to return to that country, for the purpose of there visiting the true source of the Nile, which he then believed to be that of the Omo or Bórara:—in other words, the detection of this error was the *cause* and not the *result* of the second journey to Enárea.

In the statement now given in his *Résumé des Voyages*, which was communicated to the Academy of Science of Paris on the 3rd of December, 1849, M. d'Abbadie presents us with a totally different version of the motives for his second journey. After describing the remarkable incidents connected with his excursion from Enárea to Kaffa just related,¹ he goes on to say:—

Meanwhile my brother, uneasy at my delay, threatened in 1844 to have all the merchants who traded with Enárea arrested, whereupon the king of that country hastened to send me back to Abessinia. On my arrival there I heard of the expedition sent by Mohammed Ali towards the source of the Nile, and that M. d'Arnaud, the chief of that expedition, had ascertained that above the island of Jeanker, in 4° 42' N. latitude, the principal branch of the Nile comes from the east. *After having discussed the statements of the natives, my brother and I came to the conclusion that among the various affluents in the vicinity of Kaffa THE GODJEB IS THE PRINCIPAL ONE.* My brother however was of opinion that the question merited a new exploration, and we returned into the Galla country towards the middle of 1845. This time we separated, in order to study on different roads these countries in which it is so difficult to deviate from a route traced beforehand,² and often impossible, without long delays, to retrace one's steps. *We met together again in Enárea at the end of 1845: OUR INTENTION WAS TO GO TO THE SOURCE OF THE GODJEB; but the discussion of our observations made us decide that the river Omo is the principal affluent of the White River, and that its source is in the forest of Babia on the southern frontier of Enárea.—Comptes Rendus, vol. xxix. pp. 656, 657.*

In this last statement we find all that had been so distinctly and circumstantially related only two years before unceremoniously set aside. We have here no sketching of maps, whether at Massówa or at Gondar;—no consequent detection of the error with respect to the Godjeb, either by M. d'Abbadie alone or with the aid of his brother;—no tormenting idea of having misled geographers in a matter of so much importance;—no resolution to retrace his steps to Enárea *for the purpose of visiting the source of the Omo* and making its position a mathematical

¹ See page 29, *ante*.

² And yet on his first journey, M. d'Abbadie would appear to have made no difficulty in "deviating from the route traced beforehand," on

which his brother, "uneasy at his delay," was anxiously expecting him, and by which the King of Enárea had "hastened to send him back."—See pages 7, 8, *ante*.

deduction from that of Gondar;—no deep regret at having to do so on account of the pining to revisit France. All these stated facts, these strong motives, these deep feelings, are to be considered—dreams! We are to look at the last account as the authoritative revelation on the subject; and according to this last announcement it would appear that the two brothers, after a calm and deliberate consideration of the entire question, came to the conclusion that the Godjeb was, as the elder had always believed and as he had written to Europe in October, 1844,¹ the principal branch of the Nile. But because *M. Arnauld d'Abbadie* entertained the opinion that “the question merited a new exploration,” off they both started with the “intention to go to the source of the Godjeb” in the neighbourhood of Kaffa; and it was only when they “met again together in Enárea at the end of 1845,” that “the discussion of [their] observations made [them] decide that *the river Omo was the principal affluent of the White River* ;”—and this although we have a most explicit previous statement that, it was *just after he had sent off his letters to Europe from Massówa, in Northern Abessinia, in October, 1844*, that he had “perceived that *the basin of the Borora or Umo (Omo) was much larger than that of the Godjeb*, and the idea that [he] had misled geographers in a matter of this importance so tormented [him], that [he] resolved to retrace [his] steps to Enárea, visit if possible the actual source, and add to [his] previous and insufficient azimuthal angles a sufficient number of new ones to make the position of the famous sources a mathematical deduction from that of Gondar.”

I will not stop to inquire how it will be attempted to reconcile these improbable and directly contradictory statements, or how the public will receive the attempt if made; but I feel persuaded that the geographers whom *M. d'Abbadie* has expressed himself so anxious not to mislead must and will take care that they are not misled any longer. For my own part, I cannot look upon the one statement as being more likely to be true or more deserving of credence than the other, and I must therefore reject them both; and in their place I will proceed to give what, after a full consideration of all the circumstances of the alleged second journey to Enárea, appears to me to have been the real cause of it.

My impression is, that instead of quitting Godjam for Enárea and Kaffa in the month of May, 1843, *just before the setting in of the rains, which commence yearly in the month of June*, *M. d'Abbadie* settled down in that province and occupied himself

¹ See page 31, *ante*.

with collecting oral information respecting the countries lying to the south of the Abai, in the same way as I had done during the rainy season of the preceding year, 1842. Only there was, I conceive, this difference between us,—that while I communicated to the public my information such as I had received it, M. d'Abbadie worked up his materials into the more interesting form of a journey actually accomplished. And as, after my departure from Godjam in the beginning of 1843, M. d'Abbadie and his brother were left alone in that province, except during the brief interval of M. Lefebvre's rapid passage through the eastern portion of it about the time when M. d'Abbadie says he set out from Baso on his way to Enárea; he “fondly—and as [he] now learn[s] foolishly—hoped to be the *only* authority on the subject,”¹ and therefore fancied he might claim the merit of an expedition to Kaffa without the risk and trouble of performing the journey. On his arrival in Northern Abessinia, however, towards the end of 1844, he there met Messrs. Bell, Plowden and Parkyns, three English travellers;² and having learned from “a printed letter of M. Fresnel,” the French consul at Djiddah, that “a visit to the sources of the White Nile was also the object sought” by those gentlemen,³ he feared, not without good cause, that should they succeed in their undertaking, they would soon make the world acquainted with his own shortcomings. He consequently found himself under the necessity, *bon gré, mal gré*, of retracing his steps; and, having attached himself to Messrs. Bell and Plowden, he accompanied them to Baso, where he “advised Mr. Bell to proceed with his companion amidst the ordinary caravan,”⁴ while he himself “formed the bold plan of going at once from Baso to Limmu [Enárea] with five servants only,”⁵ and thus got the start of the English travellers. On the other hand, his warrior-brother,—who on a previous occasion had with his well-armed troop bid defiance to the potent Abba Bógibo himself,⁶ but was now most pacifically disposed,—remained behind with Messrs. Bell and Plowden, who soon got entangled in a quarrel with the Gallas,⁷ in which blood appears to have been shed.⁸ Those gentlemen would most probably give an account of the transaction somewhat different from that related by M. d'Abbadie in the columns of the *Athenæum*;⁹ but, at all events, the result appears to have been that M. Arnauld d'Abbadie

¹ See Appendix I. page 44.

² See *Athen.* No. 1041, p. 1056.

³ *Ibid.*

⁴ *Ibid.*

⁵ *Ibid.*

⁶ See page 7, *ante*.

⁷ See page 31, *ante*.

⁸ See *Athen.* No. 1041, p. 1057.

⁹ *Ut supra*.

managed to give them the slip and to join his brother, wherever he then was, while the English travellers were effectually prevented from proceeding on their intended journey.

III. As to my third objection, founded on the difficulties and contradictions presented by the geodetical and astronomical observations of M. d'Abbadie,¹ the following is the manner in which he endeavours to get rid of that:—"The observations of latitude and azimuths, of which several were made by my brother, were for the most calculated on our journey; *but I have desired to subject them to the control of a new calculation* before presenting them here."²

M. d'Abbadie might have rendered this "new calculation" unnecessary by publishing his original notes of the observations themselves and leaving them to be *calculated* by others; which would besides, in this "cooking" age, have been much more satisfactory. However, I am glad to perceive that Sakka has once more become "the *capital* of Enárea,"³ and that its position, which was formerly "in 8° 12' 30" north latitude, the star observed not having been corrected for aberration and nutation,"⁴ is now made to be in 8° 11' north latitude.⁵ M. d'Abbadie does not inform us whether the difference of 1' 30" between these two determinations of the position of Sakka arises from the "correction for aberration and nutation;" but, if so, the fact is curious, and I am sure that astronomers would thank him for the full details of so remarkable a phenomenon. Meanwhile, and in the absence of more ample information, I am disposed to retain the opinion already expressed by me⁶ as to the short distance most probably existing between Sakka and the source of the Gibbe. It has been seen that in the first instance M. d'Abbadie made this distance to be rather more than twenty-six statute miles.⁷ It is now reduced by him to about twenty-four miles and a half. I therefore confidently look forward to yet more favourable results from the "new calculation" to which his observations are being subjected.

One circumstance, however, connected with the observations made on the second journey cannot fail to cause astonishment. It is that M. Arnauld d'Abbadie should have been employed to make observations of latitude and azimuths, seeing that the result of the only astronomical observation made by him of which the scientific world has any knowledge, is far from inspiring confidence in what he may have done to assist his more skilful

¹ See page 17, *ante*.

² *Comptes Rendus*, vol. xxix. p. 657.

³ *Ibid.* p. 656; and see page 12, *ante*.

⁴ See page 25, *ante*.

⁵ *Comptes Rendus*, vol. xxix. p. 656.

⁶ Page 26, *ante*.





⁷ Page 25, *ante*.

brother. The particulars of the observation in question are thus recorded by the latter :—" Having led you on the road to Enárea, I must inform you *en passant* that Démbecha, which appears in my printed itinerary, is situated in $10^{\circ} 7' 50''$ north latitude, from an observation made there by my brother with a box-sextant. This figure will perhaps have to undergo a slight correction, when I shall have calculated the five or six observations made at Démbecha."¹ It is not easy to say which is the more remarkable—the skill with which M. Arnauld d'Abbadie was able to observe to *ten seconds* with a box-sextant, which even on the vernier was certainly not divided to less than whole minutes,—or the extraordinary error of *twenty-five minutes* on the observation itself ! The latitude of Démbecha, as resulting from four observations of the sun made there by myself, is $10^{\circ} 33'$ north.²

IV. On a careful perusal of the foregoing remarks, it will not be doubted that M. d'Abbadie has, in his *Résumé des Voyages* submitted to the Academy of Sciences, endeavoured to meet the allegation which forms the subject of my fourth objection;³ namely, that he had desired to suppress his first journey to Enárea and Kaffa, and to found his scientific reputation on his second journey to Enárea alone. It is for the public to judge how far he has been successful in this endeavour, and with what benefit to his reputation.

¹ *Bulletin*, 2nd Series, vol. xiv. p. 240.

² The following note of the observations made by me at Démbecha is extracted from my Diary :—

| | | | | | | |
|-----------------|---|--------|-------------|--------------|------|--------------------|
| 1842, Jan. 30th |  | double | merid. alt. | 122° 58' 15" | lat. | 10° 33' 29" N. |
| 31st |  | " | " | 122 34 15 | " | 10 32 3 |
| Feb. 2nd |  | " | " | 124 40 30 | " | 10 32 58 |
| 6th |  | " | " | 127 3 30 | " | 10 33 6 |
| | | | | | | <hr/> 131 36 <hr/> |

Index error of Sextant — 2' 15"

mean latitude $10^{\circ} 32' 54''$ N.

See also the *Journal of the Royal Geographical Society*, vol. xiv. p. 65.

³ See page 26, *ante*.

APPENDIX.

I.

THE following letter, headed *Remarks on Dr. C. Beke's Paper "On the Countries South of Abyssinia,"* was addressed by M. d'Abbadie to Mr. Ayrton, and by him handed to the Editor of the *Athenæum* for publication. It appeared in that Journal on October 16th, 1847, No. 1042, pp. 1077, 1078. My Paper, to which it relates, was printed in the Journal of the Royal Geographical Society, vol. xiii. pp. 254—269.

In now reprinting M. d'Abbadie's letter for the purpose of refuting its contents, I have taken each paragraph and answered it separately. It begins thus:—

As I have but little time to point out a great number of *errata*, I shall be as brief as possible.

Dājach Gosho was born in Nazrit (Gojam), and his father D. Zawde was also a native of Gojam: D. Gosho is therefore not of Galla extraction.

When in Godjam, I collected the materials for a biographical memoir of Dedjach Goshu and his father Dedjach Zaudi. From this memoir the following particulars are extracted. About the end of the 17th century, in the reign of Hatsie Yásu Tálak—the Emperor Joshua the First—a Galla of the tribe of A'muru, whose name I could not ascertain, crossed the river Abai in company with many of his countrymen, and settled in the province of Damot, where he had lands granted to him by the Emperor at Yedingra, in the district of Yemálog. He had a son or grandson named Sillin, who married Cherit, the daughter of Racho, another Galla settler in the adjoining district of Dinn. Racho was likewise the father of Amáro, Tullu, Róggie, Dagágwo, and several other sons; whose descendants still dwell in Damot as simple country people. In my excursions through that province I met with individuals of the lowest class, who were pointed out to me as cousins of Dédjach Goshu. By his wife Cherit, Sillin became the father of three sons; of whom the eldest was *Ya Kristos Zaud* ("the Crown of Christ") familiarly called and commonly known by the name of Zaudi.

Thus Dedjach Goshu, the son of Zaudi, is of Galla extraction: a fact as notorious throughout his dominions, in which M. d'Abbadie, like myself, resided some length of time, as it is in England that Queen Victoria is of German extraction.

O'mar Dājat [Nedját], who indulges often in that species of conversation called "fibs" by some and "yarn" by others, has never been beyond Kafa;—which is well proved by the distortion of all geographical features in the neighbourhood.

That 'Omar must have been beyond Kaffa (see page 45, *post*) is proved by his description of the Suro negroes of the valley of the Godjeb, as compared with that of the inhabitants of the valley of the White River given by M. Werne. See further on this subject, pages 49, 50, *post*.

Wälagga is full of men and merchants. There is no *h* in Didesa—I am positive of

that. The forest which contains the source of the Gojab does not extend to Inarya [Enárea],—as I passed between both in a country open and pretty well cultivated.

I merely said—"Wallegha is an extensive plain and *in great part* desert country." M. d'Abbadie, like myself, knows nothing of this country but from oral information.

With respect to the spelling of the name *Dedhésa*, M. d'Abbadie will tell us by and by (see page 53, *post*) that, when affirming thus positively and unqualifiedly that there is no *h* in this word, he "said so merely on the assumption that *h* stands always for an aspirate!"

Of the forest I said—"In this forest and in its immediate vicinity, are the heads of the Godjeb, Gaba, and Dedhésa, the first of which streams is but a small brook, where it is crossed on one of the routes from Guma to Kaffa. This forest *appears to extend* westward and northward through Wallegha, and *eastward to Enárea*, in which country my first informant, Dilbo, describes the Gibbe known to him as rising in a large forest." This fact M. d'Abbadie *circumstantially* denies, and, as he asserts, from his own personal knowledge. But as he can only have "passed between both in a country open and pretty well cultivated" on his alleged journey from Enárea to Kaffa; and as it is believed that, in the preceding pages, it has been sufficiently proved that that journey did not take place; this pretended personal evidence is worthless—to say nothing else of it. But more than this:—In his letter of August 5th, 1847, (*Athen.* No. 1046, p. 1057,) M. d'Abbadie speaks of having had, while at Sakka, "to the south the forest of Babia and the sources of the Enárea Gibbe," and "on the right [west] the highland forest which, under different names, contains the *sources of the Godjeb, Baro, and Dedhésa*"; and he does the same again in a recent communication in the *Bulletin*, vol. xiii. p. 299. Now, as in his last maps (*Bulletin*, vols. ix. and xii.) the sources of the Dedhésa and Gibbe are placed almost contiguous, and both are situate in the south of Enárea; and as, according to his own showing, the forest which contains the source of the Godjeb *contains also that of the Dedhésa*; it follows, from his own evidence, that the forest of which I spoke *does* extend to Enárea, notwithstanding his assertion to the contrary.

No Galla country between the Abbay and the Gojab is without a settled form of government; for they are all small republics, with chiefs changed every eight years. Each tribe has several chiefs—not only *one*.

Too little is known of the customs of the Gallas to warrant any such sweeping assertion—a *negative* one too—as this of M. d'Abbadie's. Dr. Tutschek, in his *Dictionary of the Galla Language*, p. 21, speaks of customs different from those described by either M. d'Abbadie or myself. And M. d'Abbadie himself allows virtually that Enárea, Guma, and Djimma-Kaka, all of which are "Galla countries between the Abai and the Godjeb," are *hereditary monarchies*. (See pages 41—43, *post*.)

The districts of Galla near the Abbay are not on such very friendly terms with Gojam; as the former are continually murdering the latter, and all the passes of the Abbay are consequently looked on as replete with danger. I cannot, with Dr. Beke, call this a friendly footing. These Galla pay tribute when an army comes to exact it, —not otherwise.

I stated that those districts "are *more or less* on a friendly footing with the rulers of the peninsula of Godjam, to whom *most of them pay tribute*." The mode of collecting the revenues of the State differs in different countries. In Abessinia, the prince or one of his chiefs goes in person with his army to collect them, and in case of refusal his soldiers *distrain*. In England, tax-gatherers and custom-house officers are sufficient for the purpose. The

following remark of an intelligent Oriental, Assaad y Kayat, on the collection of the revenue in England is quite to the point:—"The easy way in which the revenue is collected is beyond all praise;—*not a single musket employed* in the collection of nearly sixty millions annually. May other nations learn how the law may be upheld *without having recourse to arms*."—*A Voice from Lebanon*, pp. 127, 128.

A man from Limmu mentioned his clan without adding the name of Sobó;—which may, however, exist. Not so the identification of the Didesa and Yabus, which I was repeatedly assured are two distinct tributaries of the Abbay; the Yabus, called Dabus by the Galla, rising in or near Sayo.

Limmu-Sobó, as distinguished from the Limmu of Enárea, *does* exist. (See *Journ. Roy. Geogr. Soc.*, vol. xvii. pp. 17-21.) Beyond the former country is a large river, respecting which I said—"This river, in its position, coincides with the Yabús, and is therefore *probably the Dedhésa in the lower part of its course*." What I thus stated is substantially correct. The Yabús, called *Inbúss* by M. Russegger and *Dabús* by the Gallas, (*ibid.* p. 32.) is a tributary, not of the Abai, but of the Dedhésa; so that the lower course of the two streams is one and the same. It is not till about fifty miles below the confluence of the Yabús that the Dedhésa is joined by the Abai. (See the map facing the Title-page.)

Neither of the two Sibú nor of the two Leqa is comprised in Obo.

I was informed by more than one person that Sibú and Leka *are* sub-tribes ("children") of Wobo; and they are so marked in a map drawn for me by Dedjach Goshu. I prefer this evidence to M. d'Abbadie's *ipse dixit*.

There is no country called Hither Jimma; the Jimma near Gudru has for the last twenty years been on very bad terms with Gojam. Dr. Beke must have written here the words *good terms* by a *lapsus calami*, and must be excused.

This is a mere quibble. I spoke (p. 267) of "*Hither* or Tibbi Djimma" as contradistinguished from "*Further* or Kaka Djimma." The two expressions were used by me in juxtaposition, and could not be misunderstood. The people of this "*Hither*" Djimma, like those of Guderu, "*on account of their connexion with the market of Baso*, find it to their interest to keep constantly on good terms with their neighbours of Godjam." When at Yejubbi in the years 1842 and 1843, I was in frequent communication with natives of Djimma, who visited the weekly market of Baso.

Mächa means *country*; and has never been applied to Kutay—in my hearing at least—as the name of a country.

I must again repeat that Kuttai is one of the sub-tribes of Mecha (Mächa or Maitsha), and that this latter is the name of one of the principal tribes of the Gallas, as I heard both in Shoa and in Godjam. A large portion of this *tribe* of "Maitsha" crossed the Abai and settled in the northern part of the peninsula of Godjam, to which they gave their name; and "Maitsha," *as the name of a country*, appears in every modern published map of Abessinia! Further, in the *Journals of the Rev. Messrs. Isenberg and Krapp*, p. 213, the latter missionary expressly enumerates the "Kuttai," into a portion of whose country he entered in company with M. Rochet on February 2nd, 1840, among the sub-tribes of the "Maitsha Gallas."

At a recent meeting of the Geographical Society of France, (see *Bulletin*, vol. xiii. p. 333,) M. d'Abbadie most amusingly "expressed his astonishment that M. Beke, who had never set foot within the kingdom of Kaffa, or even in the country occupied by the Gallas, *the sons of Metcha*, of which country the entire width (being a distance of at least 150 miles,) at all times separated him from Kaffa, should presume to explain, that is to say criticise,

a journey into those countries, into which no European ever penetrated either before or after M. d'Abbadie." I will only express my astonishment at M. d'Abbadie's unfortunate want of memory, which makes him so constantly assert things which he has elsewhere denied. Metcha, then, according to his last statement, does not merely mean *country*: it is, after all, *the name of a tribe*,—and consequently *the name of the country inhabited by that tribe*,—as I asserted and he denied! And the Kuttai are a sub-tribe of "the sons of Metcha," inhabiting a portion of the extensive district alluded to by M. d'Abbadie.

The caravans from Baso to Inarya on leaving Jímma do not enter Nonno,—a feat as difficult as entering Hanover on leaving Switzerland. Nonno has a regular but feeble government, and is thickly inhabited.

As the entire distance between Baso and Enárea is less than 120 miles, the comparison of what is *only a small portion of this distance* to that between Hanover and Switzerland is absurd; if, indeed, it is not intended to mislead. I do not find "Nonno" marked in M. d'Abbadie's map; but in its position, its physical character, and its social and political condition, it corresponds with his "desert of Chibbe." (*Athen.* No. 1041, p. 1057.) I therefore believe my description of Nonno to be substantially correct.

The communications said to be cut off in February 1843 were only so with Dr. Beke and his informers; but not in reality, as trade was then brisk in the Galla country.

I did not speak of the state of trade in the Galla country. And I said "four months previously to," not in February, 1843. My words were—"It is in Nonno that the Káfilahs [between Baso and Enárea] find the greatest obstacles, being frequently detained several months, *as was the case during the last season of 1842-3, when, for four months previously to my departure from Baso, (in February 1843,) all communication between the two countries was cut off.*" This fact I now unqualifiedly re-assert. M. d'Abbadie himself (*Athen.* No. 1041, p. 1057) describes "the dangerous desert of Chibbe," which, as above stated, corresponds with the locality in question, as being "the field of battle of Enárea, Guma, Bunho, Djimma-Hinne, Leka, and Bilo." No wonder, then, that it should often be impassable for the caravans, as it was at the time to which I alluded.

A small part only of the Limmu of Inarya is turned Mohammedan; and those even still adore the Spirits of the mountains and offer them sacrifices.

This point is not worth a question. I spoke in general terms, and mainly to show that the inhabitants of Enárea are no longer Christians, *as by geographers they are usually stated to be*. For I said that "the Limmu tribe of *pagan* Gallas long ago made themselves masters of the country. . . Hence the names of Limmu and Enárea are used as almost synonymous. They have, however, since turned Mohammedans."

Saka—not Sakka—termed a "great emporium" by the learned Doctor, is nothing more than a straggling hamlet or village. The king's slaves never watch trees—too abundant to be precious.

The subject of Sakka (I retain the spelling,) will be discussed in the sequel (page 51). In the very next sentence, M. d'Abbadie states that he was told that the king of Djimma "is hard [at work] planting coffee trees." Now I confess that I cannot understand why trees that are worth planting and bear a berry currently saleable should be "too abundant to be precious."

Coffee is never sold in Inarya by the load; but by a small measure (a horn cup) supposed to contain a pound. When the coffee has not been deprived of its pericarp it is sold in bags made of a single goatskin; the price is at the cheapest four or five

pounds for an amole. In Inarya no mules are ever hired. There is scarcely any coffee in the valley of the Gojab; but Abba Jifara, king of Jimma Kakka, is hard planting coffee trees, as I am told.

I see no sufficient reason for questioning the correctness of the information obtained by me respecting the sale of coffee in Enárea. My informants were veracious persons, and had no object in misleading me. As regards the existence of coffee in the countries beyond Enárea, I said—"In Djimma and Kaffa *small quantities* only are found, as likewise in the valley of the *Godjeb*;" and this M. d'Abbadie confirms.

"The approach to Inarya is at (the) Kella" means simply that it is at the frontier of Inarya,—a truth too obvious to be inculcated to our present intelligent generation.

From this, M. d'Abbadie would wish it to be inferred that "Kella" means "frontier." In the passage, however, on which the foregoing is a comment, I said that "the approach to Enárea from the N. is at *Kella*—a word of frequent occurrence, which has the same signification as the Amharic *ber*; viz., a gate or pass." And I find in Dr. Tutschek's *Galla Dictionary* (p. 34) the following definition of the word *Kela* (Kella)—"gate, door; especially that which is made through the rampart." In this instance, therefore, as in most others, M. d'Abbadie's "truth" is anything but obvious.

I cannot suffer the learned Doctor to disparage my royal friend Abba Bagibo, king of Inarya;—as he was decidedly victorious in the last contest with Jimma. The great majority of his subjects, and even some of his principal officers of state, are still heathen.

I stated that "Enárea was till lately at war with the neighbouring countries of Djimma and Guma: with the former to much disadvantage. But peace has now been established between the monarchs of the three kingdoms, which peace has been cemented by their union by marriage, and still more by the adoption of Islamism by the kings of Djimma and Guma. In Enárea this religion has long since usurped the place of heathenism; this country being the principal place of residence of the Mahommedan merchants of Abessinia, whose precepts and example have had, and still continue to have, most surprising results in the conversion of the Gallas." I do not see anything to alter in this statement; except, perhaps, that the peace which existed between Abba Bógibo and Abba Djifár may since have been broken.

If "manufactures" mean literally things made with the hand, Dr. Beke is perfectly right as to the Limmu manufactures: but not so if "manufactures" mean something on a large scale. The king of Inarya, however, prefers the *toga* of Abyssinia, and his finely ornamented cloths come from Kafa and from the Gurage. This is a fact, and admits of no discussion.

What "manufactures" were intended by me is self-evident, notwithstanding the doubt which M. d'Abbadie would wish to raise. I spoke of "daggers with well-wrought blades and ivory handles very elegantly inlaid with silver, as well as cloths with ornamented borders, brought from Enárea, such as would in vain be looked for in Abessinia." M. d'Abbadie's "fact which admits of no discussion," corroborates my further statement that "throughout the Galla country, of which Shoa may be regarded as a part, the state of manufactures is much superior to that of *Abessinia, properly so called*." For Guragie is, in part at least, tributary to Shoa; and Kaffa, though strictly speaking it is not a part of "the Galla country," is still so connected therewith locally, that it may be classed with it when speaking generally (as I did) of the *countries south of Abessinia*, as contristinguished from Abessinia itself.

Inarya *produces* little or no ivory; for a simple reason—viz. there are no elephants

in the country. It possesses three commercial outlets:—1. Baso by Jimma Rare and Gudru; 2. Shāwa, or rather Wari Haymano, by Agabdjai; 3. Wālagga. The trade by Agabdjai is regular, and almost all the coffee goes by that road.

If there is any force in M. d'Abbadie's reason why ivory is not the "produce" of Enárea, it must equally apply to his statement that that country produces *little* of that commodity. But this playing with words is childish. Assuming it be true that there are no elephants in the country, —upon which point it is unnecessary to express an opinion—we have the evidence of M. d'Abbadie himself that "the most disagreeable dangers of Chibbe are *herds of elephants*"—the said "dangerous desert of Chibbe" reaching to "the very *Kella* or frontier gate of Enárea." (see *Athen.* No. 1041, p. 1067.) Here then the people of Enárea would obtain ivory in quantities, which they would *produce*—that is to say, "offer to the view or notice" or "exhibit to the public"—in their markets. And that ivory is really common in the markets of Enárea, we have the evidence of M. d'Abbadie himself, in contradiction of his own previous statement. For, in speaking of the merchant Omar Badúri, (see page 51, *post*) he says that he "kept servants in the markets of Gombota and *Sakka* to buy up civet, slaves, or *ivory*!"

M. d'Abbadie states that one of the outlets for the coffee of Enárea is "Shoa, or rather *Warra Haimano*, by Agabdjai," which is much the same as if it were said that England exports coffee to France, or rather *Germany*, by Belgium. For, the uninitiated must be informed that *Warra Haimano*, of which the capital, Tanta, was visited by Dr. Krapf in April, 1842, (see his *Journals*, p. 341,) lies considerably to the north of Shoa, and has, indeed, less to do with the latter country than Germany with France. From my own personal knowledge I can assert that the *Warra Haimano* merchants purchase the Enárea coffee at *Baso market*.

I have been assured that Bagibo is *not* the name of a horse; but will not allow mere oral information to impugn the authority of the learned Doctor. Sauna Abba Rago, grandson of Abba Gom-ol (I protest against an *h* here), is *not* the heir apparent of Ibsa Abba Bagibo. I have not time to turn up authorities,—but the king of Inarya has at least fifteen residences, not seven only. His principal seat is at Garuge, near the tomb of the old warrior Boko Boko, *alias* Abba Gom-ol. The remarks on slavery, &c., apply to Inarya, not to Guma.

In No. 662 of the *Athenæum*, (p. 532,) M. d'Abbadie says—"The king of Enárea, who, according to established custom, is known *by the name of his horse* (Abba Bagibo, *i. e.* father or master of *the horse Bagibo*)." The reader may believe whichever he pleases of these two directly contradictory assertions of M. d'Abbadie.

In speaking of the king, Abba Bogibo, I stated that "his father's name was Boko, surnamed Abba Gomhol [I shall defend the spelling of the name by and by]; and his eldest son and heir apparent is Sanna, or Abba Rago." Does M. d'Abbadie mean to assert that in Enárea the *eldest* son is not the heir apparent of his father? If not, I do not see the force of his objection. I will not dispute the alleged larger number of the monarch's residences. And yet there may be only *seven* that are specially deemed as such. My remarks on slavery in Guma were—"The inhabitants of Guma were, more than those of any other country, doomed to slavery; as *their sovereign*, who has the character of extreme severity, is in the habit of *selling whole families*, for offences—sometimes of the most trifling nature—committed even by a single individual." According to M. d'Abbadie, it is not Abba Rebu, king of Guma, but Abba Bogibo, king of Enárea, to whom these enormities are attributable. I thank him for this information respecting the revolting practices of his "royal friend." I always knew Abba Bogibo to be an extensive slave-dealer; but I was not aware of his wholesale dealings in his

own subjects. At the same time I must express my belief that the practice adverted to prevails likewise in Guma, and probably to a greater extent than in Enárea.

Inarya has lost nothing by Jímma. The father of Sauna Abba Jífara was Gangela Abba Mägal. I never heard Folla called Polla; and slaves are no longer mutilated there.

I was assured that the dominions of Sanna, surnamed Abba Djifár, king of Djimma Kaka, have "been much enlarged by acquisitions lately made at the expense of Enárea"; and I see no reason to doubt the correctness of this information. The father of Abba Djifár, according to my informants, was "Dángila, surnamed Abba Nagál." Polla for Folla is manifestly a dialectic difference, just as M. d'Abbadie tells us (see page 31, *ante*) the river Godjeb is called Godepo and Godefo. As M. d'Abbadie only knows Folla by hearsay, it is rather hazardous on his part to assert that the custom of mutilating slaves mentioned by me, *which by implication he admits to have prevailed*, no longer exists.

The Janjāro government was not capriciously despotic. The whole country, or nearly so, has been now subdued by Abba Jífara, who has made the king his prisoner.

The precise character of a government is a matter on which difference of opinion may fairly exist. That of Djándjaro is however admitted by M. d'Abbadie to have been "despotic," even if not "capriciously" so. The conquests adverted to by M. d'Abbadie may possibly have occurred subsequently to my departure from Abessinia, and they therefore in no wise invalidate my statements.

The mutilation of the breasts proceeded only from a foolish idea that men ought not to have nipples; and a Janjāro cunningly compared that custom to mine of shaving my head for my turban. Shaving the beard and cutting the nail of the little finger (which the Yamma or Janjāro never do) are in their estimation feats of the same order.

My *facts* being admitted, I do not see why the *reasons* for them given by my informants should not be quite as correct as those stated by M. d'Abbadie.

I was not aware, until informed by the Doctor, of the existence of *castes* in Abyssinia.

The term *caste* is properly applicable to classes of people of different origin inhabiting the same country, who do not live, intermarry, or even eat with each other. And this not merely in the sense of the original Portuguese word *casta*, but even with the restricted signification in which the word is used with reference to the inhabitants of India. I am therefore justified in speaking of *castes* in Abessinia.

The two principal tribes of the Janjāro are the Yamma and Yangara: the first is generally used to designate the country. The Yamma call themselves Christians.

I was informed in Godjam that the inhabitants of Yangaro are pagans—not Christians. Dr. Krapf says (*Journals*, p. 258) "*It seems to me that the people of Sentshiro [Djandjaro or Yángaro] were formerly Christians, because they have circumcision and some Christian feasts; but otherwise they do not appear to know anything about Christianity.*"

Kucha and Kurchash* are nearly one hundred miles, or more perhaps, distant: the latter is really, and the former is nominally, a Christian country. Botor, a Galla country, not Christian, has never subdued Kurchash;† for a similar reason that Hungary has not conquered France,—viz., distance and inferiority of numbers.

* Printed "Kuroosh" in the *Athenæum*.

† *Ibid.*

My words are "Kucha appears to be the same as Ku[r]chash, which is described as a Christian country, entirely surrounded by pagan Gallas." As M. d'Abbadie has given the distance between this country and Kucha, it is to be regretted that he did not likewise state that between Kurchash and Botor. Had he done so, it would have been seen that his comparison of those countries to Hungary and France was only intended to mislead. For, in fact, they are *close together*, in the vicinity of Agabdjai. In M. d'Abbadie's map in vol. ix. of the *Bulletin*, Kurchash (Kurcax) is placed immediately adjoining Agabdjai; *but in his last map in vol. xii. the name has been erased!*

The Gojāb is too far from Walaytza (Walanu or Jirgo) to be crossed; and when crossed, boats are never used. This assertion of the Doctor reminds me of the rafts with high gunwale, &c., which Capt. Harris so generously put afloat on the Gojāb,—while, alas, this floating property has no existence in reality, unless, as in the Boodha religion, thought only is reality.

The name "Godjeb" was applied by me, *as it was in the first instance by M. d'Abbadie himself*, to the main stream; of which he said the Bako was only a tributary, (see page 10, *ante*,) though he has since converted the latter into the lower course of the Godjeb. (*ibid.*) In speaking therefore of the "Godjeb" I meant *the main stream*, whatever name M. d'Abbadie may now please to give it; and this "Godjeb" truly divides Wolaitsa (Walaytza) from Kullo, as is shown by M. d'Abbadie's own maps in vols. ix. and xii. of the *Bulletin*. In connexion with this same river "Godjeb," I perceive in those maps the words "Bac de Gongul," that is to say, the "Gongul ferry," to which allusion is made in his letter of February 17th, 1848. (*Athen.* No. 1105, p. 1331.) If this *ferry* over the "Godjeb" is not by means of boats or rafts, perhaps M. d'Abbadie will explain what other means of passage are adopted.

I am afraid that I must again quarrel with Dr. Beke about the letter *h*; for I cannot bring my ears to detect an *h* in *tato*, the Kafa word for king. On this point I cannot give way to my learned rival in Ethiopian geography. Other points I may concede, but this unfortunate *h* I cannot; and if heaven and earth were brought together, *impavdum ferient ruinæ*, for I should die a martyr to my senses.

This rodomontade will be answered in the sequel (pages 53—55).

The present king of Kafa is called Kamo, and his *reigning* title is Gaeshäroch. His rule is, I think, not quite despotic; for on assuming his golden ring he swears to observe the laws and customs of the land and not to punish unjustly. When, however, he does extend his prerogative too far he is punished by the old-fashioned method of turning him out of the country. European states, with their far-famed wisdom, have sometimes been at a loss to find a better remedy. The king of Kafa has 10,000 horse;—a small force compared with the army of Ras A'ly, which is only a fraction of the forces of Abyssinia. The *tata* (or *tato* *with* the article) of Kafa claims descent from Mingo, and not at all from the imperial family of Ethiopia.

There are only two churches in the country,—at least I was told so at Bonga. The sanctuaries in Kafa are not churches. I have lived with Kafa people for the last two years; and never heard the history of sheep, fowls, leather, &c.. But the positive assurances of the learned Doctor may be more weighty than my simple *don't know*; and I will not venture to suspect a word of this Bonga information so unexpectedly come to me from Europe, when I fondly,—and as I now learn foolishly,—hoped to be the only authority on the subject, being the only European who ever trod on Kafa ground. But, as the *Athenæum* observed, a visit to a country does not imply that one knows that country.

Dollars are well known in Kafa;—for the merchants of that country asked for almost nothing else. There is no gold in Seka (not Sieka).

As I imagine that it has been convincingly proved in the preceding pages that M. d'Abbadie never "trod on Kafa ground," his contradiction of my

statements on these various matters of detail respecting that country possess, *at most*, no greater authority than those statements themselves. As I have before said, I see no reason to doubt the general correctness of the information which I obtained in Abessinia; though I am far from insisting on it when opposed by sufficient testimony. But while correcting this for the press, I have found it stated in page 258 of Messrs. Isenberg and Krapf's *Journals*,—"The currency of Caffa consists in pieces of salt, *silver money not being known*;" and again,—“The Sentshiros [Djandjaros], like the Gallas, *do not eat hens. Goats also are not eaten*.” As this information was obtained by Dr. Krapf in Shoa, and mine by myself independently in Godjam, the coincidence is more than enough to outweigh anything M. d'Abbadie may think proper to assert to the contrary.

Suro is not subject to Kafa. Seka is near Bonga towards the west, and not beyond Suro; at least Nalle, my Suro informer, never mentioned Siekka. The Arabs who go for trading purposes only to the Suro country never pass by Walagga. I have never heard Derbaddo mentioned.

I may mention that in page 2 of his paper the learned Doctor tells us that O'mar had been beyond Kafa,—while in page 13 he tells us implicitly, that he has not, because the road is impracticable. When Dr. Beke makes slips like these, I may be excused if I doubt the rest of his derived information, now and then at least.

As this remark is a direct imputation against my veracity, I at once answered it in my letter of October 30th, 1847, inserted in No. 1044 of the *Athenæum*, p. 1127. It will there be seen that M. d'Abbadie's objection is founded on a mere quibble. Omar had been to Suro, a country “beyond Kaffa” it is true, *but subject to it, and therefore in one sense a part of it*; though he was unable to penetrate “beyond Kaffa” *into the adjacent hostile countries*. As I there stated, “an Englishman who had never crossed the sea might just as well be charged with a ‘slip,’ for saying at one time that he had never been out of England, and at another time that he had gone out of England *into Wales*.”

It is proper to explain that M. d'Abbadie's reference to pages 2 and 13 of my paper are caused by the paging of the separate copies of it which I received from the Royal Geographical Society; one of which copies was presented by me to Mr. Ayrton, and by him forwarded to his friend M. d'Abbadie. The pages of the article in the Society's Journal (vol. xiii.) are 255 and 266.

Suro, Gimira, Nao, Doqo, and Yombo informers never mentioned the Goje River. But weigh the evidence and try to believe with Dr. Beke that it exists—it is the most convenient method of closing the debate.

Omar's Godje is merely the lower course of the Godjeb, as shown in his map. I have already expressed my regret (*Athen.* No. 1044, p. 1127) at not having, from the outset, placed more implicit reliance on the correctness of Omar's most valuable information.

I would rather say *the* Doqo than simply Doqo; because that name comprehends thirty independent States,—most of them using different languages.

“Doko” in the Galla language means “ignorant,” “stupid,” and is used much in the sense of our English word “savage.” M. d'Abbadie says in another place (*Bulletin*, vol. viii. p. 233,) that the *Dokos* “*give themselves this national name*.” He must have again forgotten himself when thus saying that thirty independent States, using different languages, give themselves *one* national name. His loss of memory is really lamentable.

The extensive tract of country to the west of the Baro is called Baqo, not Wallegga. I am assured that the Gallas beyond the Baro, and even those beyond the Baqo, speak all the same language.

Both in my text and in my map I have placed Wallegga to the east, and not to the west, of the Baro. Of the Gallas beyond that river, I merely said that they "speak a different language, or at least a different dialect."

The origin of the Galla is not [at] all a *vexata quæstio* for me:—but as I am afraid that the Doctor's learning might engage him to turn up authorities against me, and as I have no books here, I shall tell you my opinion of Galla origins another time. I may merely mention that if *gama* means *beyond*, beyond the Baro would be rendered in Ilmorma *Baro Gama*,—not *Bargâma*.

A short paper by me "On the Origin of the Gallas" is printed in the Report, for 1847, of the British Association for the Advancement of Science—"Report of the Sections," p. 113 *et seq.* In it I have referred to the opinion expressed by M. d'Abbadie on the subject, which is very far indeed from having solved the question. The words *Baro* and *gama* are contracted into *Bar'gama*, just in the same way as *Ilma* (son) and *Orma* (man) become *Ilm'orma*—the son of a man, *i. e.* a Galla. Why M. d'Abbadie should speak of the "*Ilm'orma*" language I am at a loss to understand. The Gallas themselves say *Afan'Orma*—the language of men. If we are to supersede the well-known word "Galla," we ought to call the language *Orma* or *Orman*. To speak of it as *Ilm'orma* is about as absurd as if, in speaking of the languages of M. d'Abbadie's native and "chosen" countries, we were to say the Irish-man-language and the French-man-language.

I received Dr. Beke's paper through your kindness;—and thought myself obliged to state my opinion on the information which it imparts. What I have written I have written,—to use the words of the illustrious and unfortunate Bruce; but should any one show reason to doubt my opinions, I shall ever be ready to take up my pen and answer him. In days of yore, men supported their assertions with sword and blood,—the present generation prefers pen and ink: and I, with some others, prefer the taste of these degenerate days,—as the fiercest battle, and even the most destructive defeat, will not prevent me from quietly sitting down at your fireside to philosophize at leisure by laughing sometimes at my own folly and sometimes at the folly of others.

ANTOINE D'ABBADIE.

To Fred. Ayrton, Esq.

M. d'Abbadie's declaration at a meeting of the Geographical Society of France on May 3rd last (see *Bulletin*, vol. xiii. p. 333), that "he was ready to sustain a geographical discussion, fairly offered by any one but M. Beke," and the subsequent mission, on July 4th, of his brother Arnould and friend Mr. Ayrton, to prevent me, if possible, by threats and insults, from laying before the public the facts connected with his pretended journey to Kaffa, are an unhappy commentary on the conclusion of his letter.

II.

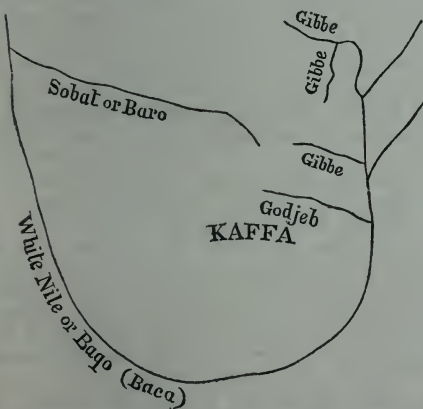
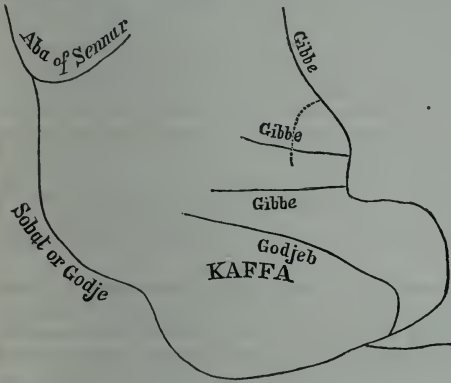
The following is extracted from a letter dated Gondar, February 17th, 1848, and addressed by M. d'Abbadie to the Editor of the *Athenæum*, in reply to my letter of October 25th, 1847, which had been inserted in that journal on the 30th of the same month, No. 1044, p. 1127. M. d'Abbadie's letter was printed in the *Athenæum* of December 30th, 1848, No. 1105, pp. 1329—1331. I did not think proper to reply to it at the time; and much of it is still unnoticed, as being immaterial and irrelevant. The paragraphs are here, as before, answered *seriatim*.

Dr. Beke presents his informer 'Omar in the character of a boaster when he says, "Where is the land that a child of Darita does not reach;" yet he affirms that 'Omar's

map is, "in its *most material features*, identical with mine,—constructed from actual survey with the theodolite." A writer who indulges in sarcasm might hold up this phrase as a specimen of Dr. Beke's judgment in all assertions of his, whether past or future. But I take these words for an oversight, merely attributable to the Doctor's eagerness; and will rest content with questioning the truth of his assertion,—first, because it is improbable,—secondly, because the Gibe of Inarya runs nearly east and west in Dr. Beke's map, while in mine it travels almost north and south,—and lastly, because, although Dr. Beke's map is now before me, he has not yet seen mine; the two sketches which I sent to Europe not containing many other details which would also prove anything but identity.

The way to answer remarks of this sort is to let the two maps speak for themselves. Accordingly a *fac-simile* of each, so far as regards the courses

of the rivers marked on them respectively, is here given. The upper one is that of Omar, which was sketched in February, 1843, by the simple process of placing the end of "his finger on the points marking the bearings of the places named, whereon I drew a circle round it, and set down the names mentioned within that circle." The lower one is that of M. d'Abbadie inserted in the *Athenæum*, No. 1042, p. 1077, which was constructed in 1847, with the aid of his theodolite, planted in 200 stations in Ethiopia, and other instruments with which he was so amply provided. It will, at a glance, be evident that the "most material features" in which these two maps are identical, and in which they differ from all preceding ones, are:—1st. The *three* rivers called Gibe—all other maps shewing only *one*, whether under the name Zebée, Kibbe, or Gibe. 2ndly. The junction of the three rivers Gibe with the Godjeb, which is not at all indicated in previous maps. 3rdly. The spiral course of the united stream round Kaffa on its way to join the Nile, instead of falling into the Indian Ocean. I am quite ready to admit—indeed I never thought of denying—the slight difference alluded to by M. d'Abbadie with respect to the direction of the



in previous maps. 3rdly. The spiral course of the united stream round Kaffa on its way to join the Nile, instead of falling into the Indian Ocean. I am quite ready to admit—indeed I never thought of denying—the slight difference alluded to by M. d'Abbadie with respect to the direction of the

middle Gibbe, which in Omar's map is from west to east, while in M. d'Abbadie's it is from south to north; but this little difference, which may be set right by means of the dotted line in Omar's map, is merely a matter of detail, and does not affect the justness or the good faith of my assertion, which only extended to "the most material features" of the two maps. As to M. d'Abbadie's last maps in vols. ix. and xii. of the *Bulletin*, though undoubtedly "containing many other details," they are substantially identical with the "two sketches" previously sent by him to Europe and inserted in No. 1042 of the *Athenæum*, of which the above is one.

If I had suspected that Dr. Beke and 'Omar Najat were united by the sacred tie of friendship, I would certainly have withheld my opinion of the latter even when writing to my own friend,—for private feelings are a sanctuary too holy to be trespassed upon. However, after having unluckily given my opinion, I do not mean to say that I swerve from it. I moreover deeply deplore that my peculiar position obliges me to inform Dr. Beke of a circumstance which he is most undoubtedly ignorant of, or he would never as a Christian, and still less as an Englishman, have called 'Omar a very honest fellow. 'Omar is, like the great majority of Darita merchants, a notorious slave dealer. I travelled in his caravan from Baso to Yfag,—had full opportunities of knowing him,—was much amused by his account of countries which he had never seen but which I had; and the only information I then reaped was from his thriving stock of children,—born free, but doomed henceforward to slavery. I may here add, that, owing to the peculiar difficulties of travelling among the Galla, I have often striven to contract at least a semblance of friendship with dealers in human flesh, but it would not do; for antipathy on my side and habits of falsehood on the other made the tie impossible. The trade in human flesh is like a moral simoom which blights every good feeling.

All that I said was—"My *poor friend* Omar, whom I looked on as a very honest fellow, is unmercifully accused of 'fibs' and 'yarns';" and upon these few words M. d'Abbadie gives vent to this gush of sentimentality respecting slavery. Even if all that M. d'Abbadie asserts respecting this merchant were true, (for which however his word can hardly be accepted as conclusive evidence,) it must be borne in mind that Omar is an Abessinian and a Mohammedan, and that by the customs of his native country, as well as by his religion, slavery and slave-dealing are deemed lawful. I cannot see, therefore, why he should not be, in other respects, "a very honest fellow,"—as I called him and still believe him to be. As to my being "united by the sacred tie of friendship" with Omar, because, in defending him from M. d'Abbadie's unfounded charge of falsehood, I spoke of him as "my poor friend," it is simply absurd; while M. d'Abbadie's assertion that he himself has "often striven to contract at least a *semblance of friendship* with dealers in human flesh, but it would not do," is something worse than an absurdity. For, what is his Galla guide, Rufo Garre (see *Athen.* No. 1041, p. 1056), whom he "kissed and blessed" on parting from him? What is the "brave and venerable" Shumi Abba Bia (*ibid.*), whom he "again embraced" in Guderu, and who named him his bridesman on his marriage with the granddaughter of Abba Bogibo? And, above all, what is his "royal friend" Abba Bogibo, against whose atrocious wholesale slave-making and slave-dealing he himself (see page 42, *ante*) so explicitly bears witness? Nevertheless, when we perceive M. d'Abbadie glorying (*Athen.* No. 1041, p. 1057) in a system of deceit by which he "proceeded cautiously to [his] own ends,"—which system, in spite of all his attempts at concealment, must have been transparent to the cunning Abessinians,—it may easily be conceived that, in very many cases, "antipathy on one side" and "falsehood on the other" would indeed have "made the tie of friendship impossible" between them.

While on the subject of "dealers in human flesh," I may ask whether our

Page 49, line 11, *between* to be *and* transported *insert* charged with felony under the 10th section of the Act above-mentioned, and, if convicted, to be.

Appendix.

49

consistent traveller is the same "M. Antoine d'Abbadie" who, at a meeting of the Geographical Society of Paris on the 5th of April, 1839 (see *Bulletin*, 2nd Series, vol. xi. p. 216), presented to the assembly a "Galla boy whom he had purchased." If so, I would recommend to his serious consideration the Act of 5 Geo. IV. cap. 113, and also the following passage in a despatch addressed by Viscount Palmerston, in the early part of last year, to Mr. Consul Gilbert at Alexandria, with reference to cases of a similar nature occurring in Egypt:—"In accordance with the opinion of the law advisers of the Crown, I have now to state to you that Her Majesty's subjects who are offenders against British law in the manner described by you, are liable to be transported or imprisoned as felons." (See the Eleventh Annual Report of the British and Foreign Anti-Slavery Society, 1850, p. 50.) It is only right that M. d'Abbadie should be aware of the law; as, though he has recently declared himself to be a Frenchman "by choice," (see page 27, *ante*) still he cannot thereby free himself from his liabilities as a British subject.

I am at a loss to understand Dr. Beke's argument relating to the Zeebe crossed by A. Fernandez in 1613; and I still retain my opinion that one of these was the Kusaro, which could not be avoided in going from Inarya to the Janjaro without a devious and useless circuit round its source near Gera.

This subject has already been discussed in page 16, *ante*.

It is not strictly logical to deny *en passant* the premises of a man's reasoning and then build a lengthened argument on that very denial. In writing to Mr. Ayrton I briefly stated that Suro is *not* subject to Kaffa. Dr. Beke, forgetting his own rule that "to contradict is not to disprove," now repeats the contrary, and in my humble opinion ought to have begun by explaining why his informers should be preferred to mine. In Abyssinia I have often heard Darita Mussulmen say that the Suro are subject to Kaffa: but the four Bonga ambassadors to Inarya pointedly told me the contrary; as likewise the messenger from the King of Gobo, a Nao slave, born near the very desert which separates the Nao from the Suro,—a Xay [Shay] slave who had fought with the Suro,—a Doqo free man in the pay of the King of Kaffa,—a Bonga blacksmith who volunteered in the last foray, and complained of the desert between the Gimira (subjects of Kaffa) and the Suro,—and last, not least, Nalle, a native of the Suro country. That Dr. Beke should have been misled into believing the subjection of the Suro on the authority of two informers only, is a pretty illustration of the rule which I laid down in your No. 1041,—viz., that in African hearsay-geography three independent informers who agree together are often requisite to establish one truth. I could fill a whole page with miscellaneous information on the Suro; and have seen three slaves from that country who left their home when grown up, and are not disfigured as the Doctor relates. Besides, in these days of universal wandering, should any Englishman meet a Kaffa slave who remembers his own country, he may easily satisfy himself that the Kaffa and Suro are irreconcilable enemies, and inhabit adjacent hostile countries.

This is an amusing instance of that charming off-hand style for which the Irish of France and the Gascons of Britain (and I believe M. d'Abbadie comes within both categories,) are famous. I had originally stated (*Journ. Roy. Geogr. Soc.* vol. xiii. p. 264) that "Suro is subject to Kaffa," which M. d'Abbadie *unceremoniously contradicted* (see page 45, *ante*); and on my repeating my assertion and giving reasons for its correctness, he coolly turns round on me and says that "it is not strictly logical to deny *en passant* the premises of a man's reasoning and then build a lengthened argument on that very denial!" I am content to leave the argument just as it stands.

But with regard to the *disfigurement* of the Suro negroes to which I alluded, and the existence of which M. d'Abbadie so summarily denies, I will adduce some evidence from a trustworthy and totally independent source, which not only tends to prove the general accuracy of Omar's information on this subject, but likewise to establish the correctness of my

hypothesis that the Godjeb is the head of the Sobat or River of Habesh, and not of the direct stream of the Bahr el Abyad or Nile. My original statement was:—"Suro is two days' journey to the west of Bonga, and is subject to Kaffa. The country is both highland and valley, but the people are all *Shánkalas* or negroes. The men go naked, and the women wear only a small apron. The king of the country alone is clothed. They are pagans. They take out two of the lower front teeth, and cut a hole in the lower lip, into which they insert a wooden plug. They also pierce the gristle of the ear all round for the insertion of grass." And I described the country of the Suro, likewise on Omar's authority, as lying in the valley of the Godjeb. (See also his map in *Journ. Roy. Geogr. Soc.* vol. xvii. part 1.)

M. Ferdinand Werne, who accompanied the second Egyptian Expedition up the White River, has recently published an account of his voyage (*Expedition zur Entdeckung der Quellen des Weissen Nil*, Berlin, 1848), in various parts of which customs similar to those described by 'Omar are mentioned as prevailing among the black inhabitants of the valley of that river. The traveller states that, as far south as Bari, in the fourth parallel of north latitude, all the natives are in the habit of *extracting several of the incisors*, both of the upper and lower jaw, "in order that they may not resemble beasts of prey" (p. 188); and that they also "*pierce the cartilage of the ear all round*, and, in the absence of beads or other ornaments, they insert in the orifices small pieces of wood" (p. 428). The natives of Bari alone form an exception, being "distinguished" (says M. Werne) "from all the people we have hitherto seen by the circumstance that they do not pierce their ears for the insertion of ornaments, and also, that they are not tattooed" (p. 293); and *higher up the river than Bari*, which country was the extreme point reached by the Expedition, *the natives are said to "keep in all their teeth"* (p. 325).

From a comparison of these particulars the conclusion may fairly be drawn, that the Suro negroes are of the same race as the inhabitants of the valley of the White River *below Bari*, but not as those *above* that country; and as they occupy the valley of the Godjeb, which is now known to be an affluent of the Nile,—and as there is no important stream joining the White River from the east *below Bari*, except the Sobát, Telfi, or River of Habesh,—it results that this latter river can only be the lower course of the Godjeb.

I am as liable to oversights as many others, but Dr. Beke ought to have chosen a better case in order to prove my frailties. In speaking of a map sketched not in Gondar, but in Saka, comprising the country between Saka and Bonga, I had said, rather ambiguously it is true, that I wished to add to it places established by oral evidence. But even had my French phrase quoted by Dr. Beke meant that my hearsay information had been already penned down right and left, the words "*à droite et à gauche*" do not inevitably imply that I had extended my information to the left bank of the Omo, or recognised fully the existence and dimensions of all its affluents. And my expressions are certainly less definite than Dr. Beke's *whole of Central Africa*,—which, according to his last explanation, means only from the Equator southwards, that is, somewhere *out of the centre*.

As regards this gross evasion of the real question respecting the map, I have only to refer to what has been said in pages 13, 14, *ante*. And as to my "definite" expression, it was, first and last, "*the whole of Southern Africa*," (see *Journ. Roy. Geogr. Soc.* vol. xvii. p. 75.)—not "*the whole of Central Africa*," as M. d'Abbadie thinks proper to assert.

The French word *bourg* does not mean *town*, as the learned Doctor is pleased to translate it,—but has a more indefinite meaning, like the English *borough*, which has been often applied to a few houses only: and I used *bourg* in the latter sense to avoid a lengthened explanation in a long letter. When the caravan is gone, most of the

Saka huts are taken down; and on the arrival of a fresh one, huts are bought and carried sometimes from the distance of several miles. A "great emporium" means a thriving permanent city, or something of the kind,—and Saka deserves no such name. I insist the more on this point because recent travellers have spoken in glowing terms of the commerce of Ethiopia. The sources of that commerce being chiefly in the neighbourhood of Inarya, I may cite an example which proves what these African emporiums are. On my return from Bonga I passed three weeks with 'Omar Badúri, a native of Harqiqo, who had arrived in Jéren (omitted in Dr. Beke's map) with twenty loaded mules, worth in Gondar *at most* 1,000 dollars, or £216, and in Inarya 26,000 amole, or pieces of salt. Now, 'Omar Badúri being very desirous of going home, gave higher prices than other merchants,—kept servants in the markets of Gombota and Saka to buy up civet, slaves, or ivory,—and was nevertheless obliged to consume *two* whole years before disposing of his goods because the markets are not stocked. Few European merchants would consent to such protracted delays.

The subject of Sakka and the meaning of the word *bourg* having already been discussed, (page 12, *ante*,) there is no need to dwell on those matters here. But M. d'Abbadie's direct and positive contradiction of my assertion that Sakka is "the great emporium" of Enárea, requires a few words in reply.

Notwithstanding his many years' residence in Eastern Africa, and in spite of his vast learning, M. d'Abbadie seems to be altogether ignorant of what "African emporia" are and always have been. We will take the description given by Captain Barker, I.N., of one of the greatest of these *emporía*—Berberah, a place which is very well known to M. d'Abbadie; for when he finally left Aden, in November, 1840, he crossed over thither, and remained there some time before proceeding to Tadjurra, where he fell in with Major Harris's Mission, as has been related in the *Athenæum* of February 17th, 1849, No. 1112, p. 167.

Of Berberah Captain Barker says, (*Journ. Roy. Geogr. Soc.* vol. xviii. p. 133,) that it is "the principal place of trade along the coast, on account of its beautiful harbour," and that for the purposes of trade "the tribes from the interior commence arriving [there] from the end of October, and continue to do so until March." It is to be hoped that even M. d'Abbadie will not assert that Berberah is "a thriving permanent city, or something of the kind;" but, lest he should do so, I will again appeal to Captain Barker's testimony, which is, that at the end of March, "in a few days *the place, from containing a population of 10,000 or 15,000, becomes totally deserted.*" And yet Berberah, which during more than half the year is thus totally deserted, is, and has been from time immemorial, one of the principal *emporía* of the Eastern Horn of Africa—and this, whether it be regarded as representing the *Mundus*, the *Mosyllon*, or the *Malao* of Arrian's *Periplus*.

Therefore, if even we acknowledge M. d'Abbadie's *third* description of Sakka to be the authoritative one, and that place to be neither "the capital of Enárea," nor a "borough town," nor yet a simple "town (bourg)," nor even a "straggling hamlet or village," but only a temporary collection of "huts bought and carried from a distance of several miles;"—in fact much such a place as that *great emporium* Berberah itself is;—still, as he admits that "the sources of the commerce of Ethiopia are chiefly in the neighbourhood of Enárea," and as Sakka is universally (with not even the exception of M. d'Abbadie himself,) recognised as the principal market of that country, I do not fear being accused of incorrectness or exaggeration in styling it "the great emporium of Enárea."

M. d'Abbadie has, however, since re-acknowledged Sakka to be "the capital of Enárea" (see page 35, *ante*); so that his principal objection on the score of its not being a "thriving permanent" place, falls of itself to the ground.

Sacrifices are made at the source of the Bora as well as those of the Gojab; but this proves nothing with the scientific geographer. As in the case of Bruce's Nile, native universal consent has long ere now been totally discarded. I have already explained in print how physical obstacles prevented me from visiting the source of the Gojab; and Dr. Beke's reproaches on that point are as misplaced as if I quarrelled with him for not going in person with the regular weekly caravans from Yajibe to Gudru (there are no caravans and even no travellers from Qanqatti to the source of the Gojab) to satisfy himself with his own eyes that the Lag 'Amara does not join the Agul, as his map will have it.

I am not conscious of M. d'Abbadie's having anywhere "explained in print how physical obstacles prevented him from visiting the source of the Godjeb," notwithstanding that I have looked pretty carefully through all he has published on the subject; nor can I indeed conceive what physical obstacles could have withstood his escort of 1000 warriors (see page 29, *ante*). But whether he has explained this or not, his comparison of my not going to the source of the Lagga (river) Amhara with his omitting to visit that of the Godjeb is anything but just. I had no special reason for visiting the former spot more than any other. I merely noted down its position from oral information, and may or may not have fallen into error with respect to it. But according to M. d'Abbadie's own statements, he went to Abessinia expressly for the purpose of visiting the source of the Nile in Kaffa; he believed the Godjeb to be the Nile; he was within thirty miles of its source, and yet he did not go that trifling distance to visit it; though, according to *one* of his statements as to the reasons for his second journey, (see page 32, *ante*,) he afterwards returned upwards of 600 miles solely with the intention of doing so.

The *Athenæum* is my only unsevered link with English science. I have not seen in your columns a full detail of Dr. Beke's reasons for carrying the sources of the White Nile to the southward of the Equator; and must for the present decline examining the weight of his opinions,—observing only that if Dr. Beke argue with M. Werne, my information, given by natives, is in accordance with M. D'Arnaud,—and that when two European travellers have different views on one and the same important point, wise men will either suspend their judgment or decide by other and independent evidence.

To this appeal to "other and independent evidence" an answer most opportunely presented itself just as these sheets were going to press.

It will be remembered that in my "Essay on the Nile and its Tributaries," (*Journ. Roy. Geogr. Soc.* vol. xvii. p. 71,) it is contended that the direct stream of the Nile "has its origin in the country of Mono-Moézi;" which country is approximatively placed by me "within two degrees S. of the Equator," and between "the 29th and 34th meridians of E. longitude." And, as "in the languages extending over the whole of Southern Africa, and of which that of the country of Mono-Moézi itself is a principal dialect, the word *Moézi*, in various forms, means 'the moon;'" the opinion is expressed that the geographer Ptolemy, having been informed that "the source of the Nile is in the *Mountains*, or hill-country, of *MOEZI*," had "merely translated that expression into τὸ τῆς ΣΕΛΗ'ΝΗΣ ὄρος, — the mountains of THE MOON." (*Ibid.* p. 75.)

The discovery made by Mr. Rebmann, in April 1848, of the snowy mountain Kilimandjaro, has already been adverted to (page 3, *ante*). I have now the satisfaction of referring to the important discovery of the still larger *Küma dja Djeu*, or "mountain of whiteness," named Kénia, which was made by my friend Dr. Krapf, on a journey to Ukambáni, 400 miles N.W. from the Missionary Station at Rabbai Mpia, near Mombas, performed in November and December, 1849, and of which an account is given in the *Church Missionary Intelligencer* of last month (September

1850), vol. i. pp. 393, 394. In the map accompanying his journal, Kénia is placed by Dr. Krapf in about 1° S. lat. and 35° E. long.; it being, like Kilimandjáro, on the road to the country of *Uniamési*, which "by interpretation may be rendered *Possession of the Moon*;" and on the northern flank of Kénia, in Dr. Krapf's opinion, "is the most probable source of the Bahr el Abyad, in accordance with Ptolemy."

This "mountain of whiteness," Kénia, is described by Dr. Krapf as having "the form of a gigantic roof, over which two horns rise like two mighty pillars, which he has no doubt are seen by the inhabitants of the countries bordering on the northern latitudes of the equator;" and it, or some other similar mountain, is, manifestly, "the *white mountain*, whose peaks are completely white," which, according to Baron von Müller (*Athen.* No. 1111, p. 142), is known to the natives of the Bahr el Abyad between 4° and 5° N. lat., and in which they state that river to have its origin.

I apprehend that but few links are now wanting to complete the chain of evidence in proof of the correctness of my hypothesis.

III.

FROM the preceding remarks of M. d'Abbadie (pages 37, 42, 44, *ante*.) it will have been observed in what emphatic terms he protested against my introduction of the letter *h* into the words *Dedhësa*, *Gomhol*, &c. And, in like manner, in his letter of August, 1847, printed in No. 1042 of the *Athenæum*, (p. 1077,) he found fault with me for spelling the name of the river *Abai* with one *b* instead of two.

In my reply, inserted in No. 1044 of the same Journal, (p. 1127,) I contented myself with saying:—"Neither will I question here the judgement pronounced *ex cathedra* on my spelling of certain native names:—perhaps on some future occasion you will afford me space for a few remarks on this subject." But, on further consideration, I really did not think it worth while to trouble either the Editor of the *Athenæum* or the public with trivialities of the sort.

M. d'Abbadie would have done well to allow the matter to remain thus. Instead of which, apparently regarding my silence as a sign of defeat, he followed up his fancied victory by a letter in the *Athenæum* of January 13th, 1849, No. 1107, p. 42, of which the following is the commencement:—

After waiting several months for Dr. Beke's promised vindication of his orthography [see *Athen.* No. 1044, p. 1127], I shall trespass on your kindness to offer a few remarks on the same subject.

When affirming that there is no *h* in Did-esa, I said so merely on the assumption that *h* stands always for an aspirate. On receiving your No. 1044, I feared some mistake on my part; and brought three different Galla to three Abyssine writers, ordering them to write the name in their own characters. One wrote Didesa (ደደሳ) and the other two Did-esa (ደደሳ). All three agreed that there was no aspiration in the word. I may here mention that your printer, more scrupulous than many learned Societies, has long ere this cast an underdotted *d* to express the cerebral *d* known in India,—perhaps identical with the Welsh *ll*, and employed likewise in the Afar, Saho, Ilmorma, and Kafacco languages. My hyphen (-) stands for the Ethiopic *alef* (አ) or the Arabic *hamzah* (ء), which is often overlooked by Europeans, who may take it for an *h* when their ear is not tutored to the peculiar sounds of foreign languages. These remarks may be of value, since the Did-esa is probably the true Bahr el Azraq, or Blue Nile.

Thus, after all, the *tirades* against my use of this obnoxious *h* were

merely founded on the gratuitous assumption that it “stands *always* for an aspirate!” Let us now see what it really does stand for.

In the month of April, 1845, I communicated to the Philological Society of London Vocabularies of thirteen languages, collected by me in Abessinia, being principally from the southern parts of that country, and including those of Gonga, Kaffa, Woratta, Wolaita or Wolámo, and Yángaro or Djándjaro, (which form a new class of languages first made known by myself,) and also the Galla of Gúderu. These Vocabularies, accompanied by some explanatory remarks, were printed in the second volume of the *Transactions* of that Society, pp. 89—107.

In those remarks, in describing the system of orthography adopted by me, I say:—“*Dh* is a sound peculiar to the Galla language, and extremely difficult to be acquired, the *d* being followed by a sort of *hiatus*, or guttural approaching to the Arabic ع.” And I further explain that the consonants not specially mentioned by me, of which the simple *d* is one, are “to be pronounced as in English.” In accordance with these rules, I write *De-dhê-sa*, which gives the true pronunciation of the word, as I studiously acquired it from numerous Gallas, when in Godjam in 1842 and 1843.

The two distinct sounds contained in this word, are represented by Dr. Tutschek in his *Grammar of the Galla Language* (p. 6.) by the characters *d* and *d'*, which are thus defined by him:—“*D* is our soft *d* in day, load, maid *d'* is a singular sound, scarcely to be expressed by European organs. It is very soft, and formed by a gentle push of the tongue upon the hinder part of the palate, so that between the *d'* and the following vowel, another consonant seems to be intercalated, similar to the Semitic Ain [ع]. It forms thus, to a certain degree, the bridge from the *T*-sounds to the gutturals; and before the ear is accustomed to this peculiar consonant, it is usually confounded with *g*.”

Thus it will be seen that Dr. Tutschek and myself entirely agree as to the pronunciation of this peculiar Galla sound, which we respectively represent by *dh* and *d'*; and it will likewise be seen that we both distinguish between this sound and that of the ordinary English *d*, which we each mark with the simple character. Not so M. d'Abbadie. In spite of all he says about his acute sensibility of hearing, that sense is actually so obtuse with him that he cannot distinguish between the two widely different sounds of *d* and *dh* in the word *Dedhêsa*. For he uses “an under-dotted *d*” to represent them both; and then, forsooth, says that the same character “expresses the cerebral *d* known in India—perhaps identical with the Welsh *ll*!”

However, “fearing some mistake on his part,” M. d'Abbadie appealed (as he says) to three Abessinian scribes, whom he got to write the word in their native characters.

All this parade of learned scrupulosity may possibly impose on such persons as may happen to know nothing of the matter—on the principle of *omne ignotum pro magnifico*. But those who are at all acquainted with the subject will be aware that, though the Abessinians certainly do possess a **፬** in their alphabet—which letter, as Mr. Isenberg tells us in his Amharic Dictionary, “is the same with our *d*,”—yet they have no character or combination of characters whatever approaching in the least to the sound of the Galla *dh* or *d'*.

These three scribes, then, did just as a like number of Frenchmen would have done, if required to write the English name *Thistlethwaite* with their native characters. They represented the unpronounceable word as nearly as they could—that is to say, *they did not repre-*

sent it at all; and their authority is, consequently, about equal to that of M. d'Abbadie himself.

As regards my use of an *h* in other places where M. d'Abbadie thinks proper to introduce a hyphen (-), I can only repeat what I have already said in the Remarks on my Vocabularies (p. 89), with reference generally to the characters employed by me:—"They are not intended to represent the precise native sounds, to which they are in many cases only approximations, near enough, however, for all practical purposes." From what precedes, it is manifest that M. d'Abbadie is not qualified to criticise the system of orthography which, after due consideration, I have thus adopted.

It remains yet to say a few words respecting the spelling of the name of the principal river in Abessinia, the *Abai*. The passage in M. d'Abbadie's letter of August, 1847 (*Athen.* No. 1042, p. 1077), above alluded to, is as follows:—

I hope it is your compositor, and not the learned Doctor, who writes *Abai* in place of *Abbay*. In your No. 918, I remarked that Abay (with one *b* only) means in Amharîa, *non-conformist, refusing, liar*. *Abbay* means *fatherly* in the Gonga language. I therefore protest at your enlightened tribunal against all those who rob the *Abbay* of its second *b*.

And in the number of the *Athenæum* (918, p. 542,) to which M. d'Abbadie thus refers, it is stated, in a note on the word *Abbay*:—

This is the proper orthography. The learned men in Godjam expressly told me, that *Abbay* is written with a double *B*.

What "the learned men in Godjam" could have been thinking of when they "expressly told" M. d'Abbadie anything so entirely incorrect as this, I cannot imagine.

Every Ethiopic and Amharic scholar knows that the alphabets of those languages are syllabic, and that the vowel sounds, which are seven in number (exclusive of diphthongs), are not represented by separate characters, but simply modify the form of the consonant in which each is incorporated. Hence the reduplication of any consonant necessarily involves the expression also of the vowel contained in it. When therefore, these "learned men in Godjam expressly told" their learned scholar "that *Abbay* is written with a double *b*," they meant of course that that letter, with its accompanying vowel, is to be twice written; and if, to the first of the two characters be given the shortest of all the seven vowels—namely *ē*—the word must necessarily be written *a-bē-ba-yi*, which would be pronounced not *Abbay* but *Abēbai*!

Had those "learned men" asserted that the *b* should be sounded like a double letter, in consequence of its being contracted from two identical letters (see Isenberg's *Amharic Grammar*, p. 17), there might have been some sense in what they said; but even in that case they could not have stated that it is "written with a double *b*." For, as a learned man who has never been in Godjam teaches us, though "in Hebrew letters so contracted receive a compensative Dagesh, and in the Arabic, a Teshdid," yet "in the Abessinian language they have no mark for this gemination." (Isenberg's *Amharic Grammar*, p. 18.)

I am afraid, therefore, that M. d'Abbadie's "learned men in Godjam," are of a piece with his "Abyssine writers," of whom mention has just been made, and who, on hearing the word *De-dhé-sa* pronounced by "three different Gallas," wrote that word with four Amharic characters, which, as read by myself and also by my worthy friend Dr. Krapf (to whom I submitted them while preparing this sheet for the press), are to be pronounced *dē-dē-yē-sa*!

The remainder of M. d'Abbadie's letter in No. 1107 of the *Athenæum* is not worth repeating. Still, the concluding portion of it is so truly charac-

teristic of the writer, that, before finally taking leave of him, I will venture to reproduce it, even at the risk of wearying my readers.

Before concluding, I wish to add a few words on *accent*. The able *savant* just mentioned [Mr. Lane] distinguishes one in Arabic,—and M. Fresnel, long his fellow-labourer in the same field, can appreciate none. *Non nobis licet tantas componere lites*, for the Arabs themselves probably have no word to express the English idea of *accent*. Without venturing to decide between these two learned friends, I would attempt an explanation by saying, that Englishmen hear an accent everywhere and Frenchmen nowhere, merely from national bias.

In Abyssinia at least we can appeal to the natives on this delicate question. It is perhaps agreed in Europe that the Giiz, or sacred language of Abyssinia, has a very marked accent; but it is not generally known that the native professors *teach* the proper accent with as much fastidiousness as many an Oxford tutor. When I saw Dr. Beke putting accents everywhere in Amharña names, I resolved to distrust my French ears and consult the Gondar professors. This was an easy task; as when the Gojam army approached in February last, noble dames and chiefs flocked to my brother's house, while mine was filled by students and tutors. These last all agreed that there is no accent in the Amharña language; and one of them having pronounced a word three times with an accent placed each time on a different syllable, was laughed at as an insufferable dissenter. The same persons, however, admitted unanimously an accent in Tigray and Ilmorma; and I find one in upwards of fifteen other Ethiopian languages which I have more or less studied.

However, with the exception of Amharña, where the question is well decided, it is perhaps premature to insist on such a nice distinction as accent; and in most foreign, especially barbarous, languages, I would omit it altogether as long as our systems of transcription are abandoned to individual, and in general random, methods. This is a growing and intolerable nuisance; and by laying it again before the eyes of your learned readers you may benefit science still more than the private wishes of yours, &c.

ANTOINE D'ABBADIE.

In the brief remarks that I shall make on these apparently erudite observations, I must, in the first place, explain that the language which is thus made by M. d'Abbadie the subject of the "delicate question" of accent, and which he styles the *Amharña*—for the only purpose, as it would seem, of mystifying the unlearned,—is nothing more nor less than the well-known *Amharic*, of which we possess printed dictionaries and grammars, besides a version of the entire Scriptures, and several elementary works from the pen of that learned "Amharic" scholar, Mr. Isenberg. This explanation simplifies the matter vastly. The public now know, at all events, what M. d'Abbadie is talking about, and they can at once perceive that the subject is not so recondite as at first sight it might have appeared to be.

With respect to the existence of an accent in this Amharic language, however M. d'Abbadie may distrust his French ears, I do not at all distrust my English organs. Still, as we are all liable to error, I will call in as umpire a *German*, namely Mr. Isenberg himself, who, in his *Grammar of the Amharic Language*, (p. 13,) actually lays down "some general rules for accentuation." If, then, as M. d'Abbadie contends, "the question is well decided," the decision is evidently not in *his* favour.

It will, of course, be understood that no *written* accent exists either in the Amharic, or in any other of the native languages of Abessinia and the neighbouring countries. But as, *in speaking*, an accent or emphasis does exist, I have considered that it would greatly facilitate the pronunciation by marking with an acute accent (') that syllable of a word, especially when it is of more than two syllables, on which the stress generally falls.



*The Royal Astronomical Society
from the author*

AN ENQUIRY

INTO

M. ANTOINE D'ABBADIE'S

JOURNEY TO KAFFA,

IN THE YEARS 1843 AND 1844,

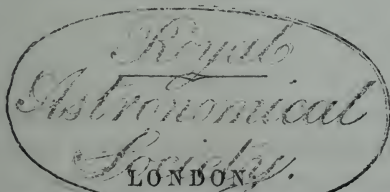
TO DISCOVER THE SOURCE OF THE NILE.

By CHARLES T. BEKE, PH.D., F.S.A.,

MEMBER OF THE ROYAL GEOGRAPHICAL, STATISTICAL, AND SYRO-EGYPTIAN SOCIETIES OF LONDON,
AND OF THE ORIENTAL SOCIETY OF GERMANY;

Author of Origines Biblicæ; An Essay on the Nile and its Tributaries, &c.

Second Edition.



JAMES MADDEN, 8, LEADENHALL STREET.

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PREFACE

TO THE

SECOND EDITION.

SHORTLY after the publication of the First Edition of the present work, I addressed the following letter to M. de la Roquette, General Secretary of the Central Committee of the Geographical Society of France, and published it under the title of *Reasons for returning the Gold Medal of the Geographical Society of France, and for withdrawing from its Membership.*

"SIR.—On the 18th July last, I had the honour of transmitting to M. Poulain de Bossay, President of the Central Committee of the Geographical Society of France, a memoir entitled '*Examen Critique du Voyage à Kaffa de M. Antoine d'Abbadie, dans les Années 1843 et 1844, pour chercher la Source du Nil,*' containing also an answer to certain statements respecting me made by that traveller in the *Bulletin* of the Society (3rd Series, vol. xii. pp. 157, 158), with the request that it might, in like manner, be inserted in the *Bulletin*; in reply to which I was favoured with your letter of the 9th August, informing me that my memoir had been communicated to the Central Committee on the 2nd of the same month, and that its further consideration had been postponed till the first meeting of the Committee in the month of October.

"I have now to acknowledge the receipt of your letter of the 24th November, communicating to me a minute of the proceedings of the

Central Committee at their meeting on the 18th October, to the following effect :—

‘The General Secretary brought to the notice of the Central Committee—1st, the manuscript memoir which Dr. Beke had addressed to the Society respecting M. Antoine d’Abbadie’s Journey to Kaffa ; 2ndly, the notes of MM. Daussy and Walckenaer relative to the same ; 3rdly, M. d’Abbadie’s answer in detail to each of Dr. Beke’s observations ; 4thly, the minute of the letter which M. de la Roquette had addressed to Dr. Beke, acknowledging the receipt of his memoir.

‘The General Secretary then gave a summary of the facts of the case, and suggested that the Central Committee should bring to a close a discussion which they could not but deplore, and which had already occupied them only too long ; and, with this object, he proposed that the Central Committee should refer all the papers relating to the matter to three of the Members who had already specially directed their attention to it, to be named for that purpose, in order that they might again examine the whole question and submit to the Committee a definite resolution on the subject, which should not be open to discussion.

‘After hearing the observations of several of the Members, the Central Committee, believing themselves to be sufficiently informed, passed purely and simply to the order of the day.’

“When I consider the past acts of the Central Committee with reference to M. d’Abbadie and myself, I must confess that, however I may regret their present conduct, I am not surprised at it. On repeated occasions they permitted M. d’Abbadie to speak of me in the Society’s *Bulletin* (vol. iii. pp. 346, 349, 350 ; vol. ix. pp. 107, 108 ; vol. xii. pp. 146, 157, 158, 228), in a way quite unsuited for the official organ of a scientific body ;—when I desired to vindicate myself from an unjust accusation brought by him against me in that work, they not only refused to admit my vindication, but allowed him to place on record (vol. xiii. pp. 333, 334) an additional explanation, which was virtually a further inculcation of myself ;—more recently (vol. xiii. pp. 384-391) they *volunteered*, on behalf of M. d’Abbadie, a direct attack on me in the *Bulletin*, in a highly adverse criticism of a Paper of mine in Berghaus’s *Physikalischer Atlas* ;—they next awarded to M. d’Abbadie the annual prize of the Society for the most important discovery in geography, on

account of his travels in Abessinia, of which his pretended journey to Kaffa forms the most important part ;—and now that they are asked to do me the bare justice of letting me in my turn be heard,—the discussion which you so much deplore having hitherto been, in the *Bulletin*, all on one side,—they pass over my representations in contemptuous silence.

“Such conduct, even if it be charitably supposed to have *originated* in ignorance of the real facts, has now assumed the character of direct partisanship and of a determination to withhold justice in a matter, which, however it may affect me individually, concerns far more the cause of science and of truth.

“That cause it is unnecessary for me to advocate : I leave it to the protection of the scientific world at large. But, as regards myself personally, I cannot quietly submit to treatment which I consider as insulting as it is unjust.

“In the year 1846, the Geographical Society of France conferred on me its gold medal for my travels in Abessinia ; and following, as it did, the award of the gold medal of the Royal Geographical Society of London, this additional token of the estimation in which my labours were held by the Geographers of Europe was received by me with feelings of more than ordinary gratification. But when I now see the same Society not merely refusing to do justice, but actually descending from the position of a judge to assume the character of a partisan and advocate ; and when I also see it conferring a distinction, which, to be appreciated, ought only to be the reward of undoubted merit, on one who clearly does not possess that merit ; I feel that it would ill become me to retain such a distinction any longer.

“I owe it therefore to myself to lose no time in transmitting to you, as the General Secretary of the Central Committee of the Geographical Society of France, the gold medal which was so awarded to me, with the request that you will, in my name, deliver it up to the Society at its next General Meeting.

“I have further to notify to you, in your said capacity, my withdrawal from the Society, and to request that my name may be omitted from the list of its *Correspondents perpétuels*.

“As, in the critique in the *Bulletin*, it was stated that the pages of that Journal were open to any observations I might think proper to make

thereon, I prepared a reply accordingly, but did not deem it advisable to forward it to you for publication till I had learned the decision of the Central Committee respecting my "*Examen critique*." Of course, after what has occurred, I do not look for the appearance of that reply in the *Bulletin*; but I have appended it to the present letter,* in order that it may be seen how totally unfounded the strictures are to which the Committee have given their sanction.

"I have the honour, &c."

"London, December 2nd, 1850."

This letter was communicated by M. de la Roquette to the Central Committee on the 20th December, and the following minute of its reception was inserted in the *Bulletin* of the Society (3rd Series, vol. xiv. p. 449).

"Dr. C. Beke writes from London to the General Secretary a letter dated the 2nd December instant, asking to be struck off the list of Perpetual Correspondents and Members of the Society: at the same time he returns the gold medal which was awarded to him in 1846.

"The Central Committee decides that the General Secretary shall, purely and simply, address to M. Beke an acknowledgement of receipt, announcing to him that his name has been struck off the list of Members of the Society."

A letter to that effect was accordingly written to me by M. de la Roquette.

On the occasion of now publishing a Second Edition my *Enquiry*, I have incorporated with it the *Reasons for returning the Gold Medal*, and feel myself further bound to notice a *Report of the Committee on the Annual Prize for the most important Discovery in Geography*, which was presented to the Geographical Society of France on the 26th July, 1850, and printed in the

* The "Reply" here adverted to is printed in the Appendix (IV.) to the present Edition, pages 57-63.

fourteenth volume of the Society's *Bulletin* (3rd Series, pp. 10-28).

That Report contains dates and circumstances respecting M. d'Abbadie's "Journey to Kaffa," which are quite irreconcilable with the previous statements of that traveller commented on in the present work ; and though it might almost seem a work of supererogation to notice such further discrepancies, still, as the Report in question professes to be the result of the deliberate consideration of five scientific men of distinction,—namely, MM. Daussy, Walckenaer, Jomard, de la Roquette, and de Froberville,—I feel myself imperatively called on, both in deference to their position in the scientific world and also in my own justification, to make the following observations on some of the statements which have thus received the sanction of their names.

M. d'Abbadie's alleged residence in Kaffa is precisely the point which has always been attended with the greatest difficulties and shrouded in the deepest mystery. It is therefore satisfactory to me at least, to see in the Report the explicit declaration (*Bulletin*, p. 19) that "he remained in that country *fourteen days*" only, and that "on the 19th December 1843, he, with his escort, re-entered the country of Abba Bógibo." But, unfortunately, this declaration rests on a moral as well as on a physical impossibility. For, after what has been said by M. d'Abbadie (page 30, *post*) respecting the "interminable formalities" to which he was subjected even on crossing the frontiers of Kaffa, it cannot be conceived that all the formalities connected with taking away from her brother a princess,

whose hand the powerful king of Enárea had sought in vain *during ten years*, should have been completed and terminated within the brief period of fourteen days—to say nothing of the total insufficiency of that time for the satisfaction of the king of Kaffa's curiosity with regard to the “mysterious white stranger,” on whose account he had at length consented to part with his much-loved sister. And, further, it was originally stated by M. d'Abbadie (pages 6 and 29, *post*), that on his way into Kaffa he crossed the river Godjeb by means of a suspension-bridge because the waters were high, but that on leaving that country in the dry season he waded across the stream; yet now it appears from the Report, that there was an interval of only fourteen days between those two widely different states of the river,—states which could not have existed but at two different seasons of the year, separated by a considerable interval of time!

Compared with such glaring inconsistencies as these, the following one may well be looked on as a trifle. Still I cannot but express surprise at its having been allowed to appear in the Report (*Bulletin*, p. 19), that “the country which M. d'Abbadie passed through on his way to Bonga, the capital of Kaffa, reminded him by its rich vegetation of the beautiful forests of Brazil;” seeing that, on a former occasion (page 38, *post*), he had expressly denied the existence of any such forest, and said that he “passed between both [*i. e.*, Enárea and Kaffa] in a country open and pretty well cultivated.”

This extraordinary curtailment of the time of M.

d'Abbadie's alleged residence in Kaffa, has had the advantage of enabling him to allow a more reasonable time for his return from Enárea to Godjam, and thus to meet the objection made on this score (pages 8—9, *post*). The Report now states (*Bulletin*, p. 19) that he quitted the former kingdom on the 25th February, 1844, and entered Godjam on the 10th April following, and that "as he was now returning into a country where the name of M. Arnauld d'Abbadie possessed great authority, M. Antoine became an important personage in the caravan," and had it in his power to induce the merchants to leave their usual road, and, passing through regions inhabited by tribes with whom most probably they were not in alliance, (if not actually at war,) to enter Godjam by the distant ford of A'muru. But how is this turning aside from the usual route to be reconciled with the previous statement (page 7, *post*), that M. Arnauld d'Abbadie was anxiously awaiting his brother on the ordinary and direct caravan route, encamped with a well-armed troop, ready to retaliate on the merchants of Enárea for the detention of the latter? And what becomes of M. Arnauld d'Abbadie's great authority, as well as of his said encampment near the ford of Gúderu in Godjam, when, in the very next page of the Report (*Bulletin*, p. 20), we read that while Antoine was thus absent in Enárea, Dedjach Goshu, from whom alone Arnauld derived whatever authority he might have possessed, had been defeated and taken prisoner by his powerful rival, Ras Ali, and that in consequence he (Arnauld) had quitted Godjam and gone

to Gondar as a suppliant on behalf of his captive patron ?

On a former occasion, M. d'Abbadie stated (*Athenæum*, No. 1041, p. 1056,) that on his *second* journey he had to place himself under the protection of a female, in order to get over the difficulty of passing the frontiers between the tribes of Gúderu and Djimma, who were alleged to have been then at war: it is now asserted in the Report (*Bulletin*, p. 18), that it was on the *first* journey that the adventurous traveller met with this guardian angel. In the *Résumé* of his Travels submitted to the French Academy of Sciences (*Comptes Rendus*, vol. xxix. p. 656, and page 29, *post*), it is stated that it was the enduring love of Abba Bógibo for the sister of the king of Kaffa, that enabled our traveller to make his extraordinary excursion to the latter country: now (*Bulletin*, p. 25), it is “une fantaisie” of the same Abba Bógibo for a daughter of Ras Ali as his fourteenth wife, that so fortunately enabled the two brothers, after being subjected to every sort of detention, indignity, and annoyance, to quit Enárea the second time “with all possible honours.”

The account which the Report gives of the second journey itself varies generally from that contained in the *Athenæum* of the 9th October, 1847 (see page 34, *post*), and especially in one remarkable particular. The quarrel in Djimma, in which Messrs. Bell and Plowden are alleged to have taken part, M. Arnauld d'Abbadie being present, is now stated (*Bulletin*, p. 24) to have occurred subsequently to the arrival of *both the brothers* in Enárea.

In pages 31 and 32 of the present work, we have *three* different versions given by M. d'Abbadie of the reasons for his second journey to Enárea, and of the circumstances under which that journey took place. It will not then be regarded as at all surprising that the Report should contain a *fourth* version differing materially from all the preceding ones. According to this statement, it would appear that M. d'Abbadie, after his return from his first journey, joined his brother at Gondar on the 30th July, 1844, and that there—

“The two brothers discussed, with the most scrupulous attention, all the information they had been able to collect respecting the various streams which contribute to form the White Nile, in order to ascertain which of them ought to be regarded as the principal one, and as forming consequently the true source of that river. After the most serious investigation, they were convinced that the Godjeb which flows round Kaffa in a sort of spiral, must, jointly with the Uma, form the eastern branch, which above the island of Jeanker is, according to M. d'Arnaud, the principal affluent of the White Nile. Consequently, it was *the larger of those two streams*, the Uma and the Godjeb, which ought to be considered as the true head of the Nile; and *they resolved therefore*, in spite of the difficulties and dangers which such an enterprise presented, *to undertake a second journey to Enárea, in order to determine definitively those famous sources.* But before embarking on his perilous career, he [M. Antoine d'Abbadie] *had once more to return to Massówa*, on the shores of the Red Sea, to obtain fresh means for pursuing his labours. Leaving Gondar on the 28th September, 1844, he reached Adowa on the 10th October and Massówa on the 26th; and he afterwards returned to Gondar, where he arrived on the 20th December.”—*Bulletin*, pp. 20—23.

That is to say, “the most serious investigation” on the part of the two brothers left the true source of the Nile so much a matter of doubt, as to render a second

journey necessary for deciding the question, and M. d'Abbadie went down to Massówa in October, 1844, to obtain means for the journey ; yet when there (see pages 14 and 31, *post*), he, without any "tormenting idea" of the consequences of such an act, deliberately "misled geographers in a matter of this importance," by sending off letters to Europe, wherein he "announced that [he] had *proved* by a variety of oral testimony that . . . the main branch of this mighty river is the *Godjeb*."

After the contradictory accounts previously given by M. d'Abbadie to the French Geographical Society and Academy of Sciences and printed in their *Bulletin* and *Comptes Rendus* respectively, and which were, or should have been, well known to M. Daussy and his colleagues, it is with pain I see statements like the foregoing adopted by them without the slightest reservation. It is for them to explain what to me is utterly unintelligible, as indeed it will probably be to every one of my readers.

Those *savans* have also to show on what authority they describe (*Bulletin*, p. 14) the mysterious "Ilmorma writing" (see page 59, *post*) as "coming from a people who appear to be composed of Jews, and who dwell in about the eighth degree of [north] latitude." As far as I am aware, this is the first time that such a Jewish people was ever heard of ; and the writing in question is by M. d'Abbadie himself affirmed to be a proposal of marriage and friendly alliance addressed to Dedjach Goshu, the Christian ruler of Godjam, by Abba Bógibo, king of Enárea, who is a Mohammedan Galla.

I can with difficulty bring myself to conceive that

the Central Committee of the Geographical Society of France, deceived as they may have been in the first instance, can still continue to give credence to M. d'Abbadie's ever-changing representations. Should it however really be, that, in spite of all the contradictions, inconsistencies, improbabilities, nay, even impossibilities, of that traveller's various assertions, they still confide in him,—their right to do which I will not for a moment question,—it is surely due to science that they should avowedly advocate his cause and (if possible) refute my arguments, instead of allowing their *Bulletin* to be the medium of the repeated attacks on me which have been made in it during several years past, and which, no longer directed against me by name, have now (3rd Ser. vol. xiv. p. 443 ; 4th Ser. vol. i. pp. 237, 243, 407) assumed the form of covert innuendo or indirect allusion.

What has occasioned this treatment has been my determination not to let the public be deceived. In the course which I have thus adopted, I have not shrunk from encountering all the annoyances of a controversy, which may on the surface have too much the appearance of being of a personal character. The main question, however, to which the personal one is merely ancillary, is the solution of a great geographical problem, namely, the true position of the sources of the Nile. On this subject my opinions are already sufficiently before the world. It is unnecessary therefore to enter into particulars now ; and I may content myself with repeating here what I recently had occasion to express in the *Athenæum* of the 29th of March last (No. 1222, p. 353), in answer to a misrepresentation made in the *Bulletin* :—

“Whether the final discovery of the sources of the Nile in the Mountains of the Moon remains to be effected from the north or from the east, it is evidently not far distant ; and I feel confident that the substantial correctness of my views respecting that river will eventually be established.”

London, 5th August, 1851.

PREFACE

TO THE

FIRST EDITION.

UPWARDS of three years ago, M. Antoine d'Abbadie became aware, through his friend Mr. Frederick Ayrton, that I entertained doubts respecting the reality of the journey which forms the subject of the following pages.

Instead of meeting those doubts in an open and candid manner, either by calling on me to substantiate them or by showing them to be unfounded, M. d'Abbadie commenced, in the columns of the *Athenæum*, a series of attacks on me respecting matters, both scientific and personal, which have no relation whatever to the subject of my doubts. These attacks gave rise to a lengthened controversy; which controversy was, after M. d'Abbadie's return to Europe last year, transferred by him from the *Athenæum* to the *Bulletin* of the French Geographical Society, where it is not yet finally closed.

It might perhaps have been more prudent to have allowed M. d'Abbadie's attacks to remain unnoticed, and merely published the evidence on which my doubts respecting his journey were based. But had I adopted that course, many of the proofs which I can now lay

before the public would not have been at my command, as they have only been elicited by the controversy itself.

It is now, however, time that the real question between M. d'Abbadie and myself should be brought prominently forward. I believe that the journey to Kaffa, alleged to have been performed by him in the years 1843 and 1844, did not take place; and the reasons for this belief are here submitted to the public, with the conviction that they will be acknowledged to be conclusive.

Being desirous of not keeping up the controversy in the *Athenæum* longer than was absolutely necessary, I refrained from noticing several of M. d'Abbadie's letters inserted in that Journal. Those letters are now given in an Appendix, together with my refutation of their contents; which, while it will show that great forbearance has been exercised in allowing them to remain so long unanswered, will at the same time afford additional evidence of the little dependence to be placed on that traveller's statements respecting the countries which he professes to have visited.

C. B.

ST. MILDRED'S COURT,

London, October 10th, 1850.

AN ENQUIRY,

&c.

IN the year 1837, MM. Antoine and Arnauld d'Abbadie left Europe, "with the express intention"—as the former has recently asserted, though he says that they at first "kept it a secret"—"of visiting the source of the White Nile, which [they] believed with Bruce to be situated in Kaffa."¹

From that time till very recently, with the exception of some brief intervals, the two brothers were resident in Eastern Africa; and the reports of their proceedings, from time to time received in Europe from the elder of them, M. Antoine d'Abbadie, naturally attracted the attention of geographers and other men of science, and excited a well-founded desire to be made more fully acquainted with the results of so many years' observations and researches in that very interesting portion of the globe.

In the beginning of the year 1845, letters were received, both in France and in England, from M. d'Abbadie, containing many particulars respecting the countries lying beyond Abessinia to the south, and, among them, of the kingdom of Kaffa.²

This country was described by him as being a peninsula surrounded by the river Godjeb, which river he said he had ascertained to be the upper course of the Bahr el Abyad, the direct stream of the Nile, recently explored by the Turco-Egyptian expeditions fitted out by command of the late Mohammed Ali Pasha.³

¹ See M. d'Abbadie's declaration to that effect in the *Athenæum* of January 27th, 1849, No. 1109, page 93.

² See *Athenæum*, No. 906, p. 242; No. 911, p. 360; No. 918, p. 542; *Bulletin de la Société de Géographie*, 3rd Series, vol. iii. pp. 52, 133,

311; *Nouvelles Annales des Voyages*, 1845, vol. i. pp. 260, 365; vol. ii. pp. 107, 218.

³ See D'Arnaud, in *Bulletin*, 2nd Series, vol. xviii. p. 367; vol. xix. pp. 89, 445; Werne, *Reise zur Entdeckung der Quellen des Weissen Nil* (Berlin, 1848), *passim*.

Had M. d'Abbadie's intelligence stopped here, it would have been but little more than a confirmation of what I myself had learned, while in Southern Abessinia in February, 1843, from an intelligent native merchant named 'Omar ibn Nedjât; whose map, giving a similar course to the Godjeb and making that river a tributary but not the head stream of the Bahr el Abyad, was exhibited by me to the Royal Geographical Society of London on the 13th of November of that year,¹ and was subsequently published in that Society's Journal.² But M. d'Abbadie's announcement went much further. He stated that, in the year 1843, he had actually succeeded in penetrating to Enárea, and thence into Kaffa by crossing the Godjeb—or Nile, as he asserted it to be—within only two days' journey, or about thirty miles distance, from its source.³

It is certainly not a little surprising that the traveller, when so near the interesting spot which he says he had then been upwards of six years in search of, should have neglected or abstained from visiting it, and should have contented himself with merely repeating to the scientific world the meagre details respecting it which he had picked up among the inhabitants of the country. From the information, however, thus obtained, the source of the Godjeb, which is held sacred by the natives of Kaffa and at which they yearly offer up a solemn sacrifice, is described as being "a small spring, issuing from the foot of a large tree of the sort which serves in Ethiopia for washing cotton cloths. To the right and to the left are two high hills, wooded to the summit, called Boshi and Doshi,"⁴ in a district named Gandjès, in the country of Gimiro or Gamru, adjoining Kaffa. And in furnishing these particulars, M. d'Abbadie expresses the opinion that, as "it is an historical fact that, prior to the sixteenth century, the Arabs were in constant communication with the countries of Hárrargie and Dáwaro, they probably derived from thence their information respecting the source of the Nile; and that, in speaking of the two mountains of Gandjès, they may have said the mountains of *Gamru* (Djabal al Qamr);"⁵ and, inasmuch as the Arabic word *gamr* or *qamr* signifies *moon*, he conjectures that "hence arose the curious error of the *Mountains of the Moon*."⁶

M. d'Abbadie's hypothesis respecting the Godjeb has already been discussed by me in various communications made to the

¹ See *Journal of the Royal Geographical Society*, vol. xiii. p. 255; *Nouvelles Annales des Voyages*, 1846, vol. iii. p. 225.

² Vol. xvii. part 1.

³ *Bulletin*, vol. iii. p. 313; *Nouv. Ann.* 1845, vol. ii. p. 112.

⁴ *Ibid.* 1845, vol. ii. p. 112.

⁵ *Ibid.* p. 113.

⁶ *Ibid.* *Bulletin*, vol. iii. p. 315.

scientific world; and I believe I have demonstrated that this river is not the upper course of the Nile, or Bahr el Abyad, explored by the Turco-Egyptian expeditions, but merely that of the Sobat, Telfi, Bahr el Makádeh, or River of Habesh, one of the principal tributaries of the Nile, which joins the main-stream in about $9^{\circ} 20'$ north latitude; and I have also adduced reasons for the opinion entertained by me, that the Nile itself comes from the unknown regions beyond the Equator, where Mr. Rebmann has lately discovered the snowy mountain, Kilimandjáro,¹—forming, as I conceive, a portion of the snow-capped Mountains of the Moon,—τὸ τῆς Σελήνης ὄρος—in which the sources of the Nile were placed, as early as the second century of our era, by the Alexandrian geographer, Ptolemy.²

I shall not, however, enter here into any investigation of the general subject; it being my intention to confine myself to an enquiry into the circumstances of the journey to Enárea and Kaffa, which M. d'Abbadie has publicly asserted he performed in the years 1843 and 1844.

When the news of this journey first reached Europe, I at once saw reason to entertain doubts as to the correctness of several points connected with it. These doubts, instead of becoming weaker, were much strengthened when, in the course of the year 1846, while engaged in preparing the materials for my "Essay on the Nile and its Tributaries,"³ I had occasion to examine the various details of this journey published both in England and France. And since that time M. d'Abbadie's further statements, especially with reference to a second journey to Enárea alone said to have been performed by himself and his brother in the years 1845 and 1846, have supplied such a mass of evidence, as not only to satisfy me of the unreality of the former journey, but to warrant me in submitting to the judgement of the scientific world the objections to that journey which I now feel it to be my duty to make.

These objections may be classed under four distinct heads:—

1. The insufficiency of the time requisite for such a journey and for the various circumstances alleged to have attended it.

2. The repeated anomalies and contradictions in the traveller's statements at different periods as to matters alleged

¹ See *Church Missionary Intelligencer*, vol. i. *passim*. And see Appendix II. page 52.

² *Geographia*, lib. iv. cap. 9.

³ Printed in the *Journal of the Royal Geographical Society*, vol. xvii. pp. 1-84.

to have been ascertained not from oral information but from personal knowledge.

3. The errors and discrepancies in his recorded astronomical and geodetical observations, and the difficulties which they present.

4. The care with which the first journey to Enárea and Kaffa—the earlier and far more important of the two, and therefore the more deserving of notice—has been since kept out of sight; while the later and less important journey to Enárea alone has been brought prominently forward and made to supersede it.

FIRST OBJECTION.—*Insufficiency of Time.*

It was on the 6th of March, 1843, on my arrival at the town of Máhhdera Máriam in Biégamidr, a province of Central Abessinia, on my return from the peninsula of Godjam where I had been resident upwards of fifteen months, that I met M. d'Abbadie, then on his way for the first time into Godjam to join his brother, who had been some time there. On the following morning he left Máhhdera Máriam for Godjam, taking the road by which I had just arrived.

Of M. d'Abbadie's movements during some time after his departure from Máhhdera Máriam on March 7th, 1843, I cannot find any traces. But, in a letter professing to have been written from Sakka in Enárea on the 16th of September of the same year, he announced his arrival in that kingdom, and stated that the journey thither from the town of Yejúbbi, in the south of Godjam, near which town the great market of Baso is held, had occupied him "more than two months,"¹ and that at the date of his letter he had been resident in Sakka "nearly two months"² more. The two periods together therefore may fairly be taken to be equal to four calendar months; so that he must have commenced his journey from Yejúbbi about the middle of May, and arrived at Sakka towards the end of July, 1843. For the present it is sufficient to bear in mind these two dates.

On his second visit to Enárea in 1845, M. d'Abbadie remarked³ that it is important for a traveller to take the precaution of obtaining an invitation from the king of that country; "as an invitation implies liberty to return," and that monarch is "in the habit of retaining all strangers [who are] not merchants." It is, however, not the less certain that on his

¹ *Bulletin*, vol. iii. p. 53.

² *Ibid.* p. 59.

³ *Athen.* No. 1041, p. 1056.

alleged first journey to that country our prudent traveller could not have taken this precaution; for, as he only arrived in the north of Godjam in the month of March, 1843, there was not possibly sufficient time for him to have announced himself to the king of Enárea and have obtained an invitation from him, before his departure from Baso in the south of the same province by the middle of May. Towards the end of July, 1843, therefore, he must have presented himself at the court of Abba Bógibo, an uninvited and unexpected guest. Under such circumstances, it was not unreasonable for the rash traveller to anticipate a fate similar to that of Pedro de Covilham, the first European who visited Abessinia in the fifteenth century, who went and never returned; namely, that he would die, like him, in Ethiopia.¹ Accordingly, in a letter dated from Sakka, October 19th, 1843, when he must have been resident there nearly three months, we find him complaining that he was "retained (*retenu*) in that country;"² and in another communication stating more explicitly that he "had wished to return to Godjam *with the November caravan*, only Abba Bógibo would not let him go."³

It appears then that down to the month of November, 1843, M. d'Abbadie was still a prisoner in Enárea. The date and manner of his departure from that country are nowhere mentioned by him. But, in a letter written after his return to Godjam, he states that "in the month of December"⁴ of that year he "crossed the Godjeb, between Yigga and Kánkatti,"⁵ at a distance of at least seventy geographical miles from Sakka, on his way into the kingdom of Kaffa. And as the map⁶ shows the spot at which he thus passed the Godjeb to be beyond the kingdom of Djimma-Káka, the king of which, Abba Djifár, is the powerful enemy and rival of Abba Bógibo, king of Enárea, (the two princes being continually at war with each other,⁷) it is manifest that M. d'Abbadie had to pass through this hostile country of Djimma-Káka before he could have reached the Godjeb.

From all these facts—as for the sake of argument we must assume them to be—derived from the correspondence of M. d'Abbadie himself, it results clearly:—1st. That that traveller, who, in November, 1843, was detained by the king of Enárea and prevented from returning to Godjam, did nevertheless,

¹ *Bulletin*, vol. iii. p. 65.

² *Ibid.* p. 67.

³ *Revue de l'Orient*, cited in the *Ausland* of December 26th, 1846, No. 360, p. 1438.

⁴ *Athen.* No. 918, p. 542; *Nouv. Ann.* 1845, vol. ii. p. 219.

⁵ *Ibid.*

⁶ Facing the Title-page.

⁷ Compare *Athen.* No. 1042, p. 1078, with the *Journal of the Royal Geographical Society*, vol. xiii. p. 259; and see Appendix I. page 41.

in or previously to the month of December of the same year, obtain that monarch's permission to depart; and not merely so, but also the special favour of permission to enter the hostile country of Djimma-Káka—a circumstance quite contrary to the usages and customs of those nations and their rulers. 2ndly; He must have traversed the kingdom of Djimma-Káka without being molested or detained by Abba Djifár, notwithstanding that he was the first European who had ever ventured into his dominions, and that he had come without invitation after having been several months the guest of that king's enemy and rival—all which again is most unusual in that part of the world. And 3rdly; All this must have taken place *by the end of December*, at the very latest.

It must appear strange to the scientific world that M. d'Abbadie should not have favoured it with any particulars of his residence in Kaffa, a country which had never before been visited by any European, and that he should not even have mentioned the length of his stay there. He must, however, have remained in that kingdom several months. For, in one of his letters we are told that, "when proceeding to Kaffa, as the waters were high, [he] crossed the Godjeb on a suspension-bridge made of *lianes*;"¹ but that "when returning [he] waded across the stream,"² its "greatest depth being about 1·2 *mètre*,"³ or four English feet; which proves that a considerable time must have elapsed between the two events, so as to have allowed the waters of the river to fall. And, indeed, in another letter, in which some lengthened and minute details are given respecting the Godjeb and its numerous tributaries, the traveller states that "it required *several months' labour on the spot* to disentangle the elements of the vast basin"⁴ of that river, and also that he made various astronomical and geodetical observations in Kaffa and especially at Bonga, its capital;⁵ all which must of course have been the work of considerable time.

When and how he quitted Kaffa M. d'Abbadie has also left a secret. But we cannot sufficiently admire the forbearance of the monarch of that country, Kamo by name, who, following the example of his neighbour of Djimma-Káka, Abba Djifár, appears not to have thought of detaining the first adventurous

¹ *Athen.* No. 906, p. 243.

² *Ibid.*

³ *Ibid.* No. 918, p. 542. *Nouv. Annales*, 1845, vol. ii. p. 219. M. d'Abbadie says in another place, that "at the ford between Djimma and Worátta [a country adjoining

Kaffa], the waters of the Godjeb, even during the dry season, reach as high as the chest."—*Bulletin*, vol. iii. p. 63.

⁴ *Bulletin*, vol. iii. p. 317.

⁵ *Ibid.* p. 314. See also vol. xii. p. 152.

European that ever could boast of having "trod on Kaffa ground"¹—conduct to be fully appreciated by those alone who have travelled in Africa. However, leave Kaffa it appears he did ; and after wading through the Godjeb and again traversing the hostile country of Djimma-Káka without hindrance from its monarch, we find him voluntarily placing himself again in the power of the same tyrannical ruler of Enárea who had kept him so many months a prisoner before. And this second time he tells us he was detained by Abba Bógibo so long, that it was "only by threatening measures of retaliation on the part of [his] brother, who with a well-armed troop was ready to arrest, in Godjam, until [his] return, all the Limmu [*i. e.* Enárea] traders,"² that he at length succeeded in getting out of that prince's hands.

Unfortunately we have not been made acquainted with the precise dates of any of these extraordinary events. But an attentive examination of the traveller's correspondence will provide us with the means of determining very exactly *the period within which* they must all have taken place—these and others too, as will appear in the sequel, not less extraordinary. For, in one of his letters, containing the results of various observations made by him in Abessinia, he fixes the date at which he had already returned to Godjam from his Enárea and Kaffa journey, by saying:—"On the 9th of April, 1844, I observed these two thermometers [wet-bulb and dry-bulb] at the height of one *mètre* above the surface of the Abai or Blue River, at the ford of A'muru."³

As, however, it was at or near the ford of Gúderu, named Melka-Furi, where the direct caravan road from Enárea to Baso market passes the river, that M. Arnauld d'Abbadie must have been encamped with his well-armed troop, ready to retaliate on the merchants of Abba Bógibo's country for the detention of his brother ; it might naturally have been expected that M. d'Abbadie's first and most anxious thought would have been to relieve his brother from further anxiety on his account and enable him to strike his tents, and that he would consequently have hurried to him by the direct and shortest road by Melka-Furi. Instead of which, the traveller seems to have quite forgotten both that his brother was expecting him, and also that a straight line is the shortest distance between two points. For we find him taking a circuitous route on his way back from Enárea, through the territories of unknown princes and tribes,

¹ *Athen.* No. 1042, p. 1078.

² *Ibid.* No. 1041, p. 1056.

³ *Nouv. Ann.* 1845, vol. iv. p. 109.

who, in conformity with Galla customs, would have been sure to retard his progress with all sorts of obstacles; and even when he had managed to get free from these and had reached the ford of A'muru, which (as it will be perceived by the map) lies at a distance of about sixty geographical miles westward from Melka-Furi, he is there occupied in making meteorological and other¹ experiments, among which that on the patience of his exemplary brother must have been far from being the most insignificant. As to the motives for this eccentric conduct, M. d'Abbadie, as usual, leaves us in the dark.²

But to return. Though we thus possess direct evidence of the presence of M. d'Abbadie at the ford of A'muru on the 9th of April, 1844, the precise date of his arrival at that spot is not indicated. But, from a desire to afford him all the time possible for his return journey from Enárea to Godjam, it shall be assumed that it was not till the very day on which he made the experiments adverted to that he reached the ford of A'muru. If, then, we consider the time which he had occupied in performing the *direct* journey from Baso to Enárea by the caravan road to have been, as stated, "more than two months,"³ we may, without fear of falling into any material error, assign a similar period, at the least, for his return by the circuitous and unfrequented road from Sakka to the ford of A'muru. Consequently, we may fix the departure of M. d'Abbadie from Enárea, on his way back to Godjam after his second captivity, as early as at the beginning of February, 1844.

But, on the hypothesis that M. d'Abbadie crossed the Godjeb on his way into Kaffa towards *the end of December*, 1843, and that he finally quitted Enárea on his return to Godjam *in the beginning of February*, 1844, there would remain only one month (that of January) for his stay in Kaffa,—his several months' labour on the spot in disentangling the elements of the vast basin of the Godjeb,—his return through Djimma-Káka,—and his arrival in Enárea and second detention by Abba Bogibo, with its attendant difficulties, and negociations and communications with

¹ See *Athen.* No. 918, p. 542; *Nouv. Ann.* 1845, vol. ii. p. 219. M. d'Abbadie says here—doubtless from an oversight—that he crossed the Godjeb on his way to Kaffa "in the month of December, 1842," instead of December, 1843; and that he crossed the ford of A'muru "in April, 1843," instead of April, 1844. But, of course, in an under-

taking like that of M. d'Abbadie, it is no easy task to remember everything.

² In a recent communication (see page 32, *post*) M. d'Abbadie states that the King of Enárea "*hastened* to send [him] back to Abessinia." How is this to be reconciled with the facts above mentioned?

³ See page 4, *ante*.

his brother, some 120 miles distant. As it would manifestly be absurd to comprise all these things within *one month*, we will assume, though this hypothesis is attended with equal difficulties, that M. d'Abbadie quitted Enárea on his way to Kaffa in the month of *November*, 1843, immediately after (or even before) the departure of the Baso caravan which he had been desirous of accompanying back to Godjam; and that, by means known to himself alone and not yet made public,¹ he was enabled to traverse the territories of Abba Djifar and reach the Godjeb with a rapidity of which we can have no conception, so as to have crossed that river by the suspension-bridge between Yigga and Kánkatti on *the very first day* of the month of December. Still this would give him only *two months*—namely, between December 1st, 1843, and February 1st, 1844—for all his adventures, difficulties and delays in Kaffa, Djimma and Enárea. And yet his “several months’ labour on the spot” necessarily implies a residence of *several months* in Kaffa; and this is corroborated by his account of the very different state of the waters of the Godjeb at the two different seasons of the year at which he says he crossed that river.

M. d'Abbadie is evidently in a dilemma; from which it is not possible to extricate him even by supposing that it was on the 1st of March, instead of on the 1st of February, that he made his second escape from the hands of Abba Bógibo; by which supposition he would acquire a latitude of *three months*—namely, from December 1st, 1843, to March 1st, 1844—between the date of his first passage of the Godjeb into Kaffa and that of his second departure from Enárea. For he would then have *only one month* and nine days—from March 1st to April 9th—to overcome all the difficulties and delays of the journey by the unfrequented route between Sakka and the ford of A'muru, which must inevitably have occupied a much longer time; while even the entire three months—from the 1st December to March 1st—would still be insufficient for all the events connected with the Kaffa episode and the second captivity in Enárea.

In coming to a conclusion on the subject, it must be borne in mind that travelling in Africa is not like travelling in Europe. The obstacles and delays to which a traveller is subjected at almost every step are quite beyond the conception of such as have never experienced them. M. d'Abbadie, when speaking of the first portion of this very journey to Kaffa, says:—“Though a person may easily go on foot from Baso to Sakka *in five days*, yet it took me *more than two months* to perform this little journey,

¹ The traveller has since *explained* that he had the help of an escort of 1,000 warriors! See page 29, *post*.

of which the difficulties, the annoyances and the sufferings exceeded anything I had ever undergone on the least frequented roads of Abessinia.”¹ So, too, on another occasion he says, “Among the Gallas I negociated *during six months*, but in vain, for permission to make a station [for geodetical purposes] on Mount Amhára.”² And on his second journey to *Enárea alone*, he tells us that his stay in the countries to the south of the Abai was protracted “to the enormous space of *seventeen months*.”³ No one, indeed, can bear stronger testimony than M. d’Abbadie himself does to the fact of “the *peculiar* difficulties of travelling among the Gallas;”⁴ and when we consider that all these Gallas are inveterate slave-takers, slave-holders and slave-dealers, and that from M. d’Abbadie’s alleged excessive sensitiveness on this head, though he “often strove to contract at least a semblance of friendship with dealers in human flesh,” yet “it would not do;”⁵ we can (if we are to believe him) well imagine how those difficulties would have been much greater in his case than in that of a traveller not possessing the same scruples of conscience.

It is useless, then, to strive to accommodate and reconcile dates and occurrences which are utterly irreconcilable. We have, on M. d’Abbadie’s own distinct avowal, “the month of December, 1843”—the day of the month is not very material—for his first crossing of the Godjeb on his way into Kaffa, and we have “the 9th of April, 1844,” for his passage of the Abai at the ford of A’muru on his return; and between these two dates it is in vain to think of heaping together such a multiplicity of events and circumstances as would indubitably have occupied any traveller upwards of a twelvemonth—if, indeed, his detention by one of the monarchs through whose dominions he passed for the first time, or some other not less disagreeable event, had not precluded their accomplishment altogether.

SECOND OBJECTION.—*The anomalies and contradictions in M. d’Abbadie’s statements at different periods, as to matters alleged to have been ascertained, not from oral information, but from personal knowledge.*

On his first journey, after a lengthened and laborious investigation of the elements of the vast basis of the river Godjeb made “on the spot,” M. d’Abbadie described “the Oshko or Baqo [Bako], which goes through Seka, the country of the Mashango,”⁶ as being a tributary of the Godjeb; and he stated that its source was situate “in the interior of the great

¹ *Bulletin*, vol. iii. p. 32.

² *Ibid.* vol. ix. p. 99.

³ *Athen.* No. 1041, p. 1058.

⁴ *Ibid.* No. 1105, p. 1330.

⁵ *Ibid.* And see Appendix I. page 48.

⁶ *Bulletin*, vol. iii. p. 317.

curve [of that river], at a day's journey [15 miles] from Bonga,"¹ the capital of Kaffa, where, as it has been seen, he had long resided. On his second journey, however, the Bako became all at once the lower course and main-stream of the Godjeb itself,² and all notice of its separate source near Bonga was unaccountably dropped.³

So too, on the first journey the Baro was said to be "a tributary on the right bank of the Godjeb;"⁴ but after the second journey it was stated not less explicitly that "the Baro and Bako do *not* join the Godjeb on the right side."⁵

Again, the Kúsaro-Gibbe, of which the source "near Gera"⁶ was said to have been visited by the traveller on his way to Kaffa in 1843,⁷ was then described by him as "joining *the Godjeb* to the west and *south-west of Bosha*;"⁸ but in his maps sent to Europe in 1847 after his second journey⁹ this river is made to join the Omo or Bórora *far above the confluence of the Godjeb*, and to the *north-east of Bosha*.

Further, in his letter dated Sakka, September 16th, 1843, M. d'Abbadie identified "the *Nilus* of the ancients with the Baro, whose source, like that of the Dödösa [Dedhésa], is in Motcha, in about 6° North latitude;"¹⁰ but in his last maps he places the source of the Dedhésa close to that of the Gibbe of Enárea, in 8° North latitude, almost due south of Sakka, and at a distance from that "capital," of *only twenty miles*.¹¹ And as from the accompanying map¹² it will be seen that the source of the Dedhésa, as thus placed, is almost directly on the road between Enárea and Kaffa, it is manifest that M. d'Abbadie must of necessity have passed close by it on his way to the latter country in 1843. Nevertheless, in a letter professing to have been written *after his return from Kaffa*, he described the source of the Dedhésa as lying "nearly under the eighth parallel

¹ *Bulletin*, vol. iii. p. 317.

² *Athen.* No. 1042, p. 1077.

³ In M. d'Abbadie's last map inserted in vol. xii. of the *Bulletin*, the lower course of the Godjeb is now called Paco, and the Bako is made to retake its place as a tributary of that river, with a course from north-east to south-west; all of which is quite irreconcilable with the results previously obtained by him.

⁴ *Bulletin*, vol. iii. p. 314.

⁵ *Athen.* No. 1042, p. 1077.

⁶ *Ibid.* No. 1105, p. 1330.

⁷ *Bulletin*, vol. ix. p. 115.

⁸ *Athen.* No. 906, p. 243.

⁹ *Ibid.* No. 1042, pp. 1077, 1080; *Bulletin*, vols. ix. and xii. In one of his sketch maps inserted in the *Athenæum* (No. 1042), M. d'Abbadie gives the names Baqo and Baca to the lower course of the Uma. And yet in a recent number of the *Bulletin* (vol. xii. p. 154), he has not scrupled to assert that *Baka* is "not the name of a river, as M. Beke imagines!" A *fac-simile* of M. d'Abbadie's map, showing this river "*Baca*," is given in Appendix II. page 47.

¹⁰ *Bulletin*, vol. iii. p. 63.

¹¹ *Ibid.* vols. ix. and xii.

¹² Facing the Title-page.

of latitude, and at a distance of seventy-five miles from Sakka, which is the capital of Enárea¹."

Again, as to Sakka itself: as M. d'Abbadie was resident in that place from July to November, 1843, and was likewise detained there some indefinite period after his return from Kaffa in the beginning of 1844, he could not have failed to become well acquainted with it. We have seen him, in the passage just cited, style it "*the capital of Enárea*;" and in another of his letters, he describes it as being "the principal 'bourg,' in which are seen the ruins of a Sidáma [*i. e.* Christian] church."² When, in commenting on this latter passage on a former occasion,³ I made use of the English word *town* as the equivalent of the French expression *bourg*, M. d'Abbadie objected to my doing so, saying that "the French word *bourg* does not mean *town* but has a more indefinite meaning, like the English *borough*."⁴ He would however have been nearer the truth, had he said that it is the word *borough* which has a more definite meaning; inasmuch as a borough is "a town with a corporation." Still, whether this "capital of Enárea" be a borough or only a town, M. d'Abbadie, on his second visit to Sakka, described it as being "nothing more than a straggling hamlet or village."⁵ And this is not the last of the metamorphoses which that unfortunate place is made to undergo. In the latest and more explicit notes of the traveller even this "straggling hamlet or village" has disappeared, and in its stead we find nothing but a mere temporary assemblage of huts occupied by the traders frequenting the market of Enárea; for we are now told that "when the caravan is gone, most of the Sakka huts are taken down; and on the arrival of a fresh one, huts are bought and carried sometimes from the distance of several miles."⁶

Such variations in the assertions of M. d'Abbadie at different periods would be perfectly natural and intelligible, if they were to be regarded as merely the results of native oral information, imperfectly expressed and not always correctly understood, collected by him in Godjam among the traders frequenting the market of Baso, from whom I had previously myself obtained much valuable information respecting the countries of Enárea and Kaffa in 1842 and 1843. But they are altogether inexplicable, if the earlier statements of the traveller, not less than the later ones, are to be taken as the enunciation of facts, of which the knowledge

¹ *Nouv. Annales*, 1845, vol. ii. p. 109.

² *Bulletin*, vol. iii. p. 56.

³ *Athen.* No. 1044, p. 1127.

⁴ *Athen.* No. 1105, p. 1330. And see Appendix II. page 50.

⁵ *Ibid.* No. 1042, p. 1077.

⁶ *Ibid.* No. 1105, p. 1331; and see Appendix II. pages 50, 51.

was acquired by himself in person, during a journey actually made to Enárea and Kaffa, as stated, in the years 1843 and 1844.

But this is not all. On his first journey, after having been settled nearly two months at Sakka on the banks of the river Gibbe, which river has since his second journey been made to supersede the Godjeb as the head-stream of the Nile, M. d'Abbadie stated that "the Göbe [Gibbe] flows into the Indian Ocean,"¹ and expressed the opinion that the Omo, of which the Gibbe is an affluent, "is probably identical with the Djöb [Juba] river, which falls into the Indian Ocean under the Equator."² Such an opinion would, in like manner, have been perfectly reasonable and intelligible as the result of *oral information obtained in Godjam*; but it is utterly inconceivable that an intelligent European, who had undertaken such a journey as that alleged to have been performed by M. d'Abbadie for the express purpose of discovering the source of the Nile, should have remained several months on the banks of this river, which he now affirms to be the head of the true Nile, with his eye resting every morning on its source in the forest of Bábia,³ and yet should not have entertained a suspicion of having there before him what he had gone so far and undergone so much in search of.

As some of these objections were, with several others, advanced by me in the *Athenæum*⁴ as long ago as November 1847, and M. d'Abbadie has since professed to answer them in the same Journal,⁵ I may give the following specimen of the character of his reply.

My Objection.

In a letter dated A'dowa, the 14th of October, 1844, (*Bulletin*, iii. 135; *N. A. des Voy.* 1845, i. 264,) written after his return from Kaffa, M. d'Abbadie said,—"J'avais l'intention de vous envoyer une esquisse de ma carte de Saka à Bonga, avec les lieux à droite et à gauche, fixés par renseignement; mais je viens de m'apercevoir que je l'ai oubliée à Gondar." In his present letter of the 5th of August, 1847, he says,—“In October, 1844, I came down from Gondar to the coast of the Red Sea, in order to replenish my purse, and send a few letters to Europe. . . . *My letters were just gone when I attempted, with six observed latitudes and a great deal of oral information, to*

His Answer.

I am as liable to oversights as many others, but Dr. Beke ought to have chosen a better case in order to prove my frailties. In speaking of a map, sketched not in Gondar but in Saka, comprising the country between Saka and Bonga, I had said, rather ambiguously it is true, that I wished to add to it places established by

¹ *Bulletin*, vol. iii. p. 54.

² *Ibid.* p. 55.

³ See *Athen.* No. 1041, p. 1057.

⁴ No. 1044, p. 1127.

⁵ No. 1105, p. 1330.

*sketch a map of Great Damot¹ . . . My various notes were scarcely brought together, when I perceived that the basin of the Borora or Umo was much larger than that of the Gojab; and the idea that I had misled geographers in a matter of this importance so tormented me, that I resolved to retrace my steps to Inarya, visit, if possible, the actual source, and add to my previous and insufficient azimuthal angles a sufficient number of new ones to make the position of the famous sources a mathematical deduction from that of Gondar."*² It is strange that, before sending off his letters from Massówa, M. d'Abbadie was not enabled to perceive this *from the map which he had previously made at Gondar*, and left behind him there.

oral evidence. But even had my French phrase, quoted by Dr. Beke, meant that my hearsay information had been already penned down right and left, the words "*à droite et à gauche*," do not inevitably imply that I had extended my information to the left bank of the Omo, or recognized fully the existence and dimensions of all its affluents.³

All I need say respecting this "answer" is that it is a mere evasion of the question.

We have been told⁴ that the express object of M. d'Abbadie's journey to Abessinia and of his many years' stay in that country, was to visit the source of the Nile, which he believed, with Bruce, to be in Kaffa. And we have seen⁵ that, when he was only thirty miles off the source of the Godjeb, at the foot of the "large tree" between Mounts Boshi and Doshi, in the country of *Gamru*, which he then believed to be the source of the Nile in the *Djebel el Gamar* or Mountains of the Moon, he did *not* visit it. We are told also, in his letter of August 5th, 1847, just cited, that as soon as he had dispatched to Europe intelligence of his supposed discovery of the source of the Nile, he found out that he had grossly misled geographers, and that thereupon he immediately set out for Enárea; thus leaving them in the dark for a couple of years, when a short note placed before starting in the hands of M. Degoutin, the French consular agent at Massówa, would have explained his mistake and prevented them from being misled. And we see, lastly, that the result of his second journey deprives the sacred fountain of the Godjeb in the mountains of *Gamru* of the honour which he himself had attributed to it, and substitutes in its stead the unknown source of one of the branches of the *Gibbe* of Enárea, in the forest of *Bábia*, but in no mountains at all.

For the sake of argument it shall be assumed that the traveller

¹ Comprising, of course, the country laid down in the "esquisse de sa carte de Saka à Bonga."

² See *Athen.* No. 1041, p. 1056.

³ The italics are as in the original

remarks, both of M. d'Abbadie and myself.

⁴ Page 1, *ante*.

⁵ Page 2, *ante*. And see Appendix II. page 52.

was warranted in this gratuitous substitution. But then a question arises which is well deserving of a remark.

In speaking of his second residence at Sakka¹ in 1845 and 1846, during a period of four months, M. d'Abbadie expressly states that his "eye rested every morning on the forest of Bábia and the sources of the Enárea Gibbe."² Of course the same must have been the case during the four or five months of his previous residence at the same place, from July to November, 1843. And as, further, the source of the Gibbe is placed by him due south of Sakka,³ he must, on his journey to Kaffa in the month of December of the same year, and on his return to Enárea at some unascertained period anterior to the 9th of April, 1844, have passed close by this source, even if he did not actually visit the spot itself; so that its position must have been sufficiently determined in "the sketch of his route from Sakka to Bonga,"⁴ which he had prepared at Sakka and left behind him at Gondar when he wrote from A'dowa.⁵ It must, therefore, be confessed that his return from Massówa on the coast of the Red Sea all the weary way to the source of the Gibbe in Enárea, —a distance of 600 geographical miles at the very least,—for the sole purpose of revisiting a spot on which his eye had already rested during several months, and by which he had already twice passed in going to and returning from Kaffa, would have been a work of supererogation without parallel in the annals of geography.

As it is my intention to confine myself to the examination of M. d'Abbadie's first journey to Enárea and Kaffa in the years 1843 and 1844, I shall not investigate the particulars of the second journey to Enárea alone in 1845 and 1846 further than is rendered necessary by its bearings on the former journey.

However, it must be observed that the description of the upper course of the Gibbe given by M. d'Abbadie even after his return from his *second* journey, and the position attributed by him to the source of that river, are quite at variance with what we are told respecting the same points by his predecessor Fernandez.

The description which this missionary gives of the Gibbe, under the name of Zébee, as recorded in the pages of Father Balthezar Tellez, is, that "it rises in a country named Bosha,"⁶

¹ In the *Athenæum* printed "Jaka."

² *Athen.* No. 1041, p. 1057.

³ *Ibid.*

⁴ *Bulletin*, vol. iii. p. 135.

⁵ See page 13, *ante*.

⁶ With respect to the position of Bosha, see page 11, *ante*.

in the kingdom of Enárea; and that, after running a few leagues towards the west, it turns to the north and passes round the kingdom of Gingiro [properly Yángaro or Djándjaro], of which it forms a peninsula, in like manner as the Nile [*i. e.* the Abai] makes one of the kingdom of Godjam; after which it leaves that kingdom and takes its course towards the south.”¹ In M. d’Abbadie’s maps,² however, while the peculiar spiral course attributed by him to the Gibbe of *Enárea* corresponds, to a certain extent, with that attributed by Fernandez to the Zébee; the course of the Kúsaro-Gibbe of Djimma, which M. d’Abbadie identifies with the Zébee,³ does not correspond with it at all.

When, on a former occasion, I alluded to this discrepancy,⁴ M. d’Abbadie contented himself with replying—“I am at a loss to understand Dr. Beke’s argument relating to the Zébee crossed by A. Fernandez in 1613; and I still retain my opinion that *one of these*⁵ *was the Kúsaro*, which could not be avoided in going from Enárea to the Djándjaro without a devious and useless circuit round its source *near Gera*.”⁶ But Fernandez expressly states that the source of the Zébee is *in Bosha*! And on a comparison of Fernandez’s description with that given by M. d’Abbadie, it is difficult to arrive at the conclusion that the Kúsaro-Gibbe of Djimma, which runs from west to east at some distance from the southern frontier of *Enárea*, is the Zébee of the former traveller which was twice crossed by him,—the first time *on the eastern frontier of Enárea*, between that kingdom and Djándjaro, and the second time *on the eastern frontier of Djándjaro*, between it and Cambáte (Kambwát), a country adjoining Gurágie.

It is only necessary to compare the account of the journey of the Portuguese Missionary, of which an abstract has been given by me in the seventeenth volume of the Journal of the Royal Geographical Society of London,⁷ with M. d’Abbadie’s most recent maps inserted in the Bulletin of the Geographical Society of Paris,⁸ to be satisfied of the impossibility of reconciling them with one another.

¹ *Historia de Ethiopia a Alta*, pp. 21, 310.

² *Bulletin*, vols. ix. and xii.

³ *Ibid.* vol. iii. p. 135; *Nouv. Ann.* 1845, vol. i. p. 263. And see *Athen.* No. 906, p. 243.

⁸ *Athen.* No. 1044, p. 1127.

⁵ I cannot comprehend the expression “one of these.”

⁶ *Ibid.* No. 1105, p. 1330. And see page 11, *ante*.

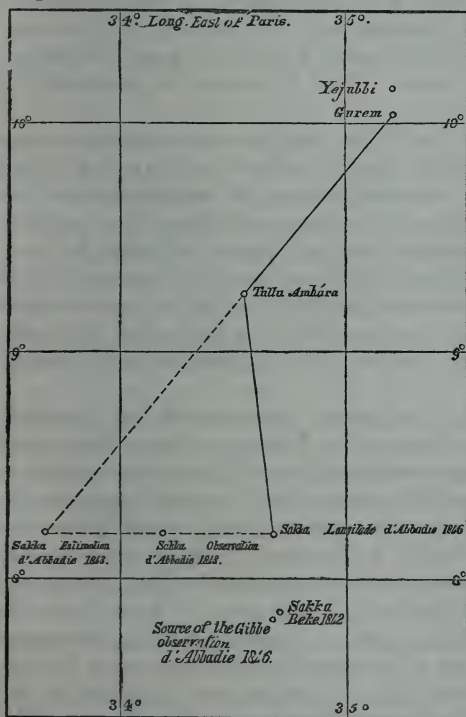
⁷ Pp. 55—57.

⁸ Vols. ix. and xii. And see the map facing the Title-page of the present Work.

THIRD OBJECTION.—*The errors and discrepancies in M. d'Abbadie's recorded astronomical and geodetical observations, and the difficulties which they present.*

In his account of his first journey to Enárea, M. d'Abbadie stated that on the road he passed "close to Tullu Amhára,¹ an isolated and remarkable peak, which, seen from the promontory of Gúrem, near the town of Yejúbbi (Baso), bears true N. $219^{\circ} 30'$ E."²—which may be more intelligibly expressed as S. $39^{\circ} 20'$ W. And he added that he placed "Tullu Amhára in $9^{\circ} 15'$ North latitude from an observation made at the Lagga (river) Amhára" close by, and "in $34^{\circ} 33'$ longitude East of Paris by estimation."³

I fortunately possess the means of testing the accuracy of the position thus attributed to Tullu Amhára. In my map in



the fourteenth volume of the *Journal of the Royal Geographical Society*, Yejúbbi is placed in latitude $10^{\circ} 8' 45''$ N., and in longitude $37^{\circ} 32' 30''$ East of Greenwich, equal to $35^{\circ} 12' 8''$ East of Paris. It is so marked in the accompanying diagram, in which I have further laid down Gúrem as being situated at about seven miles south of the former place. My reason for so doing is, that, as it will be seen, a line drawn from Tullu Amhára in the direction mentioned by M. d'Abbadie of S. $39^{\circ} 20'$ W. (or more properly speaking N. 39°

¹ "The mountain of the Amháras" or Christians. I was told in Godjam, that on this mountain are the remains of a palace built by the emperor Yásu

Tálak, or Joshua the First, whence it derived its name.

² *Bulletin*, vol. iii. p. 54.

³ *Ibid.* p. 55.

20' E.) cuts the meridian of Yejúbbi precisely at the point thus attributed to Gúrem, which may consequently be considered as its true position.

In my map in the thirteenth volume of the same *Journal* the bearing of Tullu Amhára from Gúrem, as thus placed, corresponds precisely with that attributed to it by M. d'Abbadie; and it will also be seen that the caravan route to Sakka is marked on the map as passing close by that mountain. So far, therefore, M. d'Abbadie and I agree. The only difference on the subject existing between us is that I have estimated Tullu Amhára to be in latitude $8^{\circ} 57' N.$, or eighteen miles further south than he places it. But as I had not an opportunity of seeing the peak,—which, even with that traveller's shorter measurement, must be more than sixty geographical or seventy statute miles distant from Gúrem,—and as I only estimated its position from oral information obtained at Yejúbbi and the neighbouring town of Yaush, I am far from pretending to accuracy in this particular. The difference is, however, of no great moment.

After having passed by Tullu Amhára and ascertained its position, as he states, from an observation made at the Lagga Amhára, M. d'Abbadie arrived at Sakka, of which place he, as a scientific traveller, lost no time in ascertaining the position. And, as he already possessed a fixed point in Tullu Amhára, and as the distance between the two places is so small, it is evident that the approximate determination of the correct position of Sakka could not have been a matter of difficulty, even for a traveller not making any pretensions to scientific acquirements.

The following is M. d'Abbadie's account of his proceedings:—"The want of ephemerides having hitherto prevented me from calculating my observations of longitude made at Sakka, I have provisionally placed this town one degree to the west of the meridian of the source of the Abai, which Bruce has fixed in $34^{\circ} 40'$ East of Paris."¹ (It should be more correctly $34^{\circ} 35' 8'' E.$, but so a small difference is not material.) This provisional estimation, it should be observed, is not at all to be regarded in the light of a mere rough guess on insufficient data, but as the deliberate conclusion of a practised astronomer, after having made various observations both for latitude and longitude on the spot, with a view to the accurate determination of its precise position. It will therefore not fail to strike the reader with astonishment, when he learns that this estimation is erroneous to

¹ *Nouv. Ann.* 1845, vol. ii. p. 110.

the extent of not less than one entire degree of longitude. For, as it will be shown in the sequel,¹ the longitude of Sakka, as resulting from various laborious operations said to have been performed by M. d'Abbadie on his second journey to that place in 1845 and 1846, is in fact $34^{\circ} 40'$ instead of only $33^{\circ} 40'$ East of Paris—that is to say, Sakka is on about the same meridian as the source of the Abai, instead of being “one degree to the west” of it. And this “estimation” having been made at Sakka *after the position of Tullu Amhára had been correctly determined*, it follows that the error bears entirely and exclusively upon the distance between those two places. In other words, on a distance of $1^{\circ} 2' 30''$ or $62\frac{1}{2}$ miles of latitude, there is an error of one whole degree of longitude, equal in that parallel to about 59 geographical miles! And this egregious mistake is made by a geometrician provided with geodetical and astronomical instruments of the first quality, and boasting of having “planted [his] theodolite in upwards of 200 stations in Ethiopia.”²

In order to render the error thus fallen into by M. d'Abbadie more palpable and appreciable, I will suppose an analogous case in our own country, though it is not very easy to find, within the narrow limits of England, a tract of country sufficiently extensive for the purpose. An Irish engineer, let us suppose, after having planted his theodolite in more than 200 stations in his native island, comes over to England, where he has occasion to lay down the road from Great Grimsby in Lincolnshire to Reading in Berkshire, by the way of Leicester; the position of the two latter towns being, under the supposition, unknown to him. Provided with all proper instruments, he first goes from Great Grimsby to Leicester, and determines its position with accuracy; and thence he proceeds to Reading, where he makes all the necessary observations, but without having an opportunity of calculating them. Under such circumstances, is it conceivable that this engineer could, even on the roughest estimation, commit the mistake of placing Reading in the position of Bristol? And yet, if we only change the names, and, instead of Great Grimsby, Leicester and Reading, read Gúrem, Tullu Amhára and Sakka, our engineer will have done in England precisely what M. d'Abbadie has done in Southern Abessinia.

It is true that the prudent traveller takes the precaution of explaining that “many of [his] angles do not cross³ properly; and any man of science on viewing them can not suppose that

¹ Page 21, *post*.

² *Athen.* No. 1044, p. 1129.

³ Printed “crop” in the *Athenæum*.

all these observations are mere inventions.”¹ But, assuredly, the veriest tyro in trigonometry would be incapable of committing so gross an error as this, subtending as it does an angle of *forty-four degrees*! And without for a moment supposing all M. d’Abbadie’s observations to be mere inventions, it may, under the circumstances, be allowable to show how an observer might possibly “invent” those at Tullu Amhára and Sakka without moving a step beyond Yejúbbi or Gúrem.

The process, which is a very simple one, is as follows:—The position, in latitude and longitude, of Gúrem being known, this place would first be marked on the map. Then, the bearing of Tullu Amhára from Gúrem having been *noticed*,—we can scarcely say *observed*, on account of its distance, which precludes any accurate observation,—and its distance having been estimated, there would be no difficulty in placing this mountain also on the map. Its latitude might then be noted down as if observed, and its longitude as if estimated on the spot. In the next place, it being well known at Yejúbbi and Gúrem that Sakka lies *beyond* Tullu Amhára, and that the road thither passes close by that peak, nothing would be more natural, in the absence of more precise information, than to suppose that the road beyond Tullu Amhára continued onwards in the same direction as before reaching that mountain. Under this supposition, the following mode might be adopted to determine the position of Sakka. By ascertaining, from oral information, its approximate distance from Tullu Amhára or from Yejúbbi, we should be enabled to decide as to its latitude; and then its longitude might be fixed by merely continuing the line of the road from Gúrem, beyond Tullu Amhára, but in the same direction, as far as the assumed parallel of Sakka.

All this has, in fact, been done in the above diagram; in which, having *assumed* the latitude of Sakka to be $8^{\circ} 12' 30''$ N., and having then continued the diagonal line between Gúrem and Tullu Amhára southwards, it will be seen that this line cuts that parallel precisely in $33^{\circ} 40'$ E.—M. d’Abbadie’s estimated longitude!

Nothing would now remain to be done but to note down the latitude of $8^{\circ} 12' 30''$ N. as having been *observed at Sakka* (subject to “corrections,” &c.), and the longitude of $33^{\circ} 40'$ E. as having been *estimated on the spot*.

The above process will have shown how easy it would be to place Sakka in its estimated but erroneous longitude of $33^{\circ} 40'$ East of Paris, without having been there at all. And, in like

¹ *Athen.* No. 1044, p. 1129.

manner, the instance of the Irish engineer will have shown how difficult it would have been—if not impossible—for M. d'Abbadie, after having correctly determined the position of Tullu Amhára, to have attributed that erroneous longitude to Sakka from any “estimation” made on the spot.

I now come to the consideration of the observations for longitude said to have been made at Sakka, the results of which differ so widely from the “estimation” which has formed the subject of the foregoing remarks.

By his letter dated Sakka, September 16th, 1843,¹ M. d'Abbadie forwarded to Paris a note of several lunar distances alleged to have been observed at that place, which, having been calculated by M. Daussy, gave a mean result of $34^{\circ} 11' 38''$ E. —or better $34^{\circ} 18' 36''$ E., rejecting one which was presumed by M. Daussy to be erroneous in the reading off.² So that the difference between the *observed* longitude and that originally *estimated* ($33^{\circ} 40'$ E.) is $38' 36''$; a difference which is certainly greater than might have been looked for on the part of an astronomer aiming at such great precision in his observations and calculations. It is, however, unnecessary to dwell on this point, inasmuch as the results of M. d'Abbadie's second journey are much more discordant.

We are here told that the source of the Bora, the principal head-stream of the Gibbe of Enárea, has been connected by azimuthal angles with Gondar, and that the result is $34^{\circ} 38'$ East of Paris for its longitude;³ and Sakka being found to lie “due north of the source,”⁴ it follows that the longitude of this town is, in like manner, $34^{\circ} 38'$ E. At the same time, one of several sets of lunar distances observed at Sakka itself is said to give $34^{\circ} 42' 24''$ E.⁵ Taking then the mean of these two results, we have $34^{\circ} 40'$ East of Paris (within a small fraction) for the longitude of Sakka, as determined on the second journey.

But this result, independently of its being one whole degree of longitude from the original “estimated” position of Sakka ($33^{\circ} 40'$ E.), is as much as $21' 24''$ from the mean of the observations on the former journey. Between the means of the “lunars” themselves the difference is not less than $23' 48''$; and taking their extremes, but rejecting the one thrown out by M. Daussy, the difference is $55' 54''$; while, including the latter, it would be $1^{\circ} 26' 24''$. The subject will be rendered more

¹ *Bulletin*, vol. iii. p. 57.

² *Ibid.* vol. iv. p. 231.

³ *Athen.* No. 1041, p. 1058.

⁴ *Ibid.* By mistake “source” is printed “Soura.”

⁵ *Ibid.*

intelligible by the following Table, in which the several observations of the first journey are compared with the means of the first and second journeys respectively.

Mean of Observations on the First Journey— $34^{\circ} 18' 36''$ E.

Mean of Observations on the Second Journey— $34^{\circ} 42' 24''$ E.

| | Observations on the First Journey. | Differences from the mean of the First Journey. | Differences from the mean of the Second Journey. |
|----------|--|---|--|
| 1st Set. | $34^{\circ} 48' 30''$ | $+0^{\circ} 29' 54''$ | $+0^{\circ} 6' 6''$ |
| | 34 30 45 | +0 12 9 | -0 11 39 |
| | 33 55 0 | -0 23 36 | -0 47 24 |
| | 33 46 30 | -0 32 6 | -0 55 54 |
| 2nd Set. | 34 36 15 | +0 17 39 | -0 6 9 |
| | 34 25 0 | +0 6 24 | -0 17 24 |
| | ¹ 33 16 0? | -1 2 36? | -1 26 24? |
| | 34 16 45 | -0 1 51 | -0 25 39 |
| | 34 10 0 | -0 8 36 | -0 32 24 |

From this Table it will be perceived, that the individual observations stated to have been made on the first journey range symmetrically—half *plus*, half *minus*,—round a point which now turns out to be not the true position of the place at all; while, with one exception, they all lie (and some very far) to the west of the truth. I will ask what the probabilities are that such a result was obtained from a series of *genuine* observations.

It may be urged, by way of apology, that M. d'Abbadie is in reality but an indifferent observer; and that, with all his boasting of his excellent instruments, he does not understand their proper adjustment. But, unfortunately, even such an excuse is not available; for I have been assured by a most competent judge that he is thoroughly acquainted with the handling (at least) of the most complicated instruments; and he himself expressly states that the observations in question were made with a "Gaubey's *reflecting circle* divided on platina,"² the effect of the use of such an instrument being to diminish considerably, if not to nullify, the errors both of the instrument and of the observer.

Without going further into the consideration of the observations of longitude, I will merely remark, that M. d'Abbadie appears not to have known in 1843 that the road beyond Tullu

¹ Assumed by M. Daussy to be an error in the reading off, and therefore not included in the means.

² *Bulletin*, vol. iii. p. 58; vol. ix. p. 98.

Amhára, instead of continuing onwards to Sakka in its previous direction of $S. 39^{\circ} 20'$ *West*, turns round somewhat to the *eastward* of South, as is shown in the above diagram and also in the map in Volume XIII. of the *Journal of the Royal Geographical Society*.¹ Subsequently, however, he would seem to have become aware of the fact; and hence we find him correcting his previous error, by placing Sakka first in $34^{\circ} 18' 36''$, and eventually, by means of various operations, in $34^{\circ} 38'$ and $34^{\circ} 42' 24''$ E.

Nevertheless, in order to make these corrections, it was not necessary to have proceeded all the way to Sakka, either for the purpose of connecting that place with Gondar by means of azimuthal angles, or of observing lunar distances on the spot; inasmuch as almost precisely the same result might have been obtained without so much as crossing the Abai, either at Melka-Furi or at Melka-Abro. I will endeavour to explain this with a view of showing how accurate information may be obtained in a way too much despised or neglected by professed scientific travellers.

In my map above adverted to, the town of Yejúbbi is approximatively placed in $37^{\circ} 23' 30''$ longitude East of Greenwich, and Sakka thirty miles to the west of the meridian of Yejúbbi. This is quite right as regards the position of Sakka relatively to the former place; only as, at the time when that map was drawn, the larger one of my routes in Abessinia, since inserted in the fourteenth volume of the *Journal of the Royal Geographical Society*, was not completed, the precise position of Yejúbbi, and consequently that of Sakka, could not be definitively settled. In this larger map, however, Yejúbbi is placed in $37^{\circ} 32' 30''$ East of Greenwich, which is equal to $35^{\circ} 12' 8''$ East of Paris; whence it results that the longitude of Sakka, as determined by me in Godjam in 1842 and 1843, is $34^{\circ} 42' 8''$ East of Paris. Now, remarkably enough, this result differs only $4' 8''$, or a fraction more than four miles, from the longitude of the same place as determined by M. d'Abbadie in 1845 and 1846 by means of azimuthal angles connecting it with Gondar;—it is only $1' 56''$, or less than two miles, from the exact mean ($34^{\circ} 40' 12''$ E.) of the scientific operations so carefully performed by him for the purpose of ascertaining the true position of the source of the Gibbe;—and, lastly, it is no more than $16''$, or just one quarter of a mile, from the result of his last set of lunar distances observed at Sakka. And yet, so far from pretending to have made any observations at Sakka, I never

¹ And see the Map facing the Title-page.

was nearer to that place than Melka-Furi, the ford of the Abai near Yejúbbi, a distance from Sakka of upwards of one hundred geographical miles; and my estimation of the longitude of this town, accurate as it now appears to be, is nothing but the result of oral information furnished by the natives, and especially by the merchants who trade between Baso and Enárea.

Those who have never had an opportunity of testing the value of native oral information, may, from this instance respecting the position of Sakka, form an idea of the accuracy of the results which it is possible to obtain from such a source alone, when the materials are judiciously collected and carefully collated. Another instance shall be adduced in the position of the source of the Godjeb. In my map of the 20th of November, 1843, inserted in Volume XIII. of the Royal Geographical Society's *Journal*, this source is laid down in $7^{\circ} 20'$ North latitude, and in $70'$ of longitude West from Sakka. In M. d'Abbadie's letter dated Massówa, November, 1844, being a twelvemonth later, in which he announced that he had crossed the Godjeb within about thirty miles of its source, he stated that its position was in $7^{\circ} 25'$ North latitude and $80'$ West of Sakka,¹ being a difference between us of only five miles of latitude and ten miles of longitude. And yet my nearest point of approach to the spot, on the 31st of December, 1842, was Mabil in Shínasha, near Melka-Abro, the ford of A'muru at which M. d'Abbadie made his meteorological observations on the memorable 9th of April, 1844, which place is 180 geographical miles distant from the source of the Godjeb.

It may, however, be objected that if M. d'Abbadie's journey to Kaffa be apocryphal, no great value is to be attached to his determination of the position of the source of the Godjeb as corroborative of my own. But to this I reply—and the same remark extends to the whole of his allegations with respect to his personal observations—that even if untrue, and therefore worthless as facts within his own personal knowledge; still, as the results of information obtained from intelligent natives who really were acquainted with the facts, their coincidence with results derived from totally independent sources imparts to them a value, to which otherwise they might not have any claim. I admit, however, the doubt that must always exist as to whether the native information itself is faithfully reported.

I will next proceed to the consideration of the latitude of Sakka, as determined by M. d'Abbadie.

Observations for this purpose are so easy and of so simple a

¹ *Nouv. Ann.* 1845, vol. ii. p. 113; 1846, vol. ii. p. 230.

a nature, that any common navigator with the most ordinary instruments is competent to make them with sufficient accuracy for all practical purposes. Consequently, there ought not to exist any room for question in those of a traveller professing to be an experienced astronomer, and using an excellent reflecting circle, or even a good sextant constructed by Gambey.¹

On the occasion of his first journey to Enárea, M. d'Abbadie expressed himself thus:—"My hut in Sakka is in $8^{\circ} 12' 30''$ North latitude, the star observed *not having been corrected for aberration and nutation.*"² Much as we had a right to expect accuracy on the part of the observer, it is difficult to refrain from smiling at this amusing pretension to scrupulous minuteness, which is useless in practice, and which—to repeat the remark of an astronomer of eminence on my mentioning it to him—is "very like using a lower-deck gun to shoot snipes."

From my inability to make the necessary "corrections," or from some other cause yet to be explained, my estimated latitude of Sakka does not altogether coincide with that observed with such unusual precision by M. d'Abbadie; for, in my map,³ I place this town in $7^{\circ} 51' N.$, which shows a difference between us of as much as $21' 30''$ —being $3' 30''$ more than the difference with respect to the latitude of Tullu Amhára. Nevertheless, I hope that eventually this difference will gradually disappear; and that for the following reason. In the account of his second journey, M. d'Abbadie, through some inexplicable negligence, omits to mention the latitude of Sakka. But, on the other hand, he does state that the source of the Gibbe is in $7^{\circ} 49' 48'' N.$;⁴ which, while it places that spot very close to my estimated position of Sakka ($7^{\circ} 51' N.$), makes it to be as much as $22' 42''$, or rather more than 26 statute miles, away from that town as placed by him. We are further told that "the latitude [of the source] agrees well, by even [plane?] angles from Sakka and Goruqe, with that resulting from angles pencilled on a circumferentor;"⁵ and, again, that during "five months," from the "door of [his] little hut in Sakka," his "eye rested every morning on the forest of Bábia and the sources of the Enárea Gibbe."⁶ The meaning of all which, if I rightly understand it, is that M. d'Abbadie was able to measure plane (?) angles with his theodolite, and to pencil corresponding angles on his circumferentor, of a spot on which, notwithstanding its distance of upwards of twenty-six miles, his eye had rested during five months. It is, however,

¹ *Bulletin*, vol. iii. p. 57.

² *Ibid.* p. 56.

³ *Journ. Roy. Geogr. Soc.* vol. xiii.

⁴ *Athen.* No. 1041, p. 1058.

⁵ *Ibid.* p. 1058.

⁶ *Ibid.* p. 1057.

due to M. d'Abbadie to state that he admits that "these figures may undergo a trifling change when [he] shall have discussed all his azimuthal angles."¹

Under these circumstances, I may therefore be permitted to believe that Sakka is nearer to the source of the Gibbe than the observation for latitude at the former place would make it; and I confidently anticipate that the "correction for aberration and nutation," and the "discussion of his azimuthal angles," which the learned traveller intends making, will eventually result in *a sensible amount of error*, so as to permit the position of his "little hut in Sakka" to be shifted so far southwards, as to bring it more distinctly within sight of the source of the Gibbe in the forest of Bábia than it assuredly is at a distance of twenty-six miles, even in the clear atmosphere of the highlands of Eastern Africa.²

FOURTH OBJECTION.—*The care with which M. d'Abbadie's first journey to Enárea and Kaffa, with its results, has since been kept out of sight; while the second journey to Enárea alone has been brought prominently forward and made to supersede the other.*

"In spite of my ill-health, resulting from a very fatiguing journey performed under circumstances altogether exceptional even in Ethiopia, I hasten to inform you that, on the 19th of January, 1846, my brother and I succeeded in planting the tri-coloured flag at the principal source of the White Nile:"³—such is the song of triumph in which the traveller announced to the Academy of Sciences of Paris the glorious event which had at length crowned the scientific labours of himself and his brother during a residence indefinitely prolonged in Eastern Africa, and their many wearisome and dangerous expeditions undertaken, as alleged, with the sole object of discovering the source of the Nile.⁴ Yet, if the solution of this great geographical problem was from the outset the constant and exclusive object of all their thoughts and all their labours, or even if their desire was merely to "plant the *French* flag at this source which [they] had been nine years in search of,"⁵—it certainly is not very intelligible why M. d'Abbadie should, during the first five years of his sojourn in Eastern Africa, have restricted his explora-

¹ *Athen.* No. 1040, p. 1058.

² According to the *last* accounts, the distance is only 20' or about 24½ statute miles! See page 35, *post*.

³ *Comptes Rendus de l'Académie*

des Sciences de Paris, vol. xxv. p. 485.

⁴ See page 1, *ante*.

⁵ *Comptes Rendus*, vol. xxix. p. 657.

tions to *Northern Abessinia*; and why, previously to the commencement of the year 1843, he should have passed a great part of his time in going backwards and forwards between Massówa on the coast of the Red Sea and Gondar; while his brother, on the other hand, proceeded without loss of time into Godjam, and there entered the service of Dedjach Goshu, the ruler of that province and now the Ras or Vizir of the Empire, a personage whom he was in the habit of styling his "prince and master," and by whom, as it is stated, he has been raised to the exalted dignity of "Grand Maréchal!!"¹

But, after all, what is the occurrence for which M. d'Abbadie takes to himself so much credit? In the exploration of unknown countries, unquestionably, every mile that a traveller succeeds in penetrating further than those who have preceded him may legitimately be regarded as a victory gained by him, though it may be no defeat to them. On the other hand, should an explorer undertake a journey which falls short of one previously accomplished by another traveller,—and, *a fortiori*, should he not reach the point which he himself had previously attained,—such a result can only be looked on in the light of a failure. What real merit then can M. d'Abbadie claim for having, in January, 1846, visited and even planted the flag of his "chosen" country² at "the source of the Gibbe, in the forest of Bábia, on the southern frontier of Enárea,"³—a spot on which, in the year 1843, his eye had rested during several months, and by which and far beyond which he had already passed on his journey into Kaffa?⁴ Independently of this, Kaffa is a country in which no European ever pretended to have set foot before M. d'Abbadie himself; and the title of its *discoverer* and first explorer is one which surely ought to have been sufficient to gratify the ambition of the most adventurous traveller. Enárea, on the contrary, was visited more than two centuries ago by an intelligent European, Father Antonio Fernandez, who has given us an account, though brief, of his journey to that country and even beyond it;⁵ so that a subsequent journey thither by another traveller can only be looked on as a "reconnaissance," not as a discovery.

Considering then these things, the desire manifestly evinced by

¹ See *Bulletin*, vol. vii. p. 274.

² M. Antoine d'Abbadie, or Mr. "Anthony Thomson D'Abbadie" as he called himself and signed his name when in England in 1839, has lately made the following declaration:—"My brother Arnould and myself were born in Dublin—we left

Ireland under eight years of age—and we are Frenchmen by education, fortune, and choice."—*Athen.* No. 1109, p. 93.

³ *Comptes Rendus*, vol. xxix. p. 657.

⁴ See page 15, *ante*.

⁵ See D'Almeyda, *Historia de Ethiopia a Alta*, p. 314, *et seq.*

M. d'Abbadie to suppress this most important journey to Kaffa, and to substitute for it the more recent, less distant, less difficult, less interesting, and in every respect much less important one to Enárea alone, appears to be more conclusive against the reality of the former journey than any other argument that has yet been adduced.

The preceding pages were written, in substance, upwards of a year and a half ago, but I had no suitable opportunity of making them public.

In the interval M. d'Abbadie has published two Papers; the one, entitled "*Note sur le haut fleuve Blanc*," printed in the twelfth volume of the *Bulletin* of the Geographical Society of France,¹ and the other, styled "*Résumé des Voyages faits par MM. Antoine et Arnould d'Abbadie*," inserted in the twenty-ninth volume of the *Comptes Rendus* of the Academy of Sciences of Paris.²

The perusal of these two Papers, so far from having induced me to retract a single tittle of my objections, has, on the contrary, afforded me both additional arguments and more powerful reasons for retaining my doubts of the genuineness of M. d'Abbadie's alleged first journey to Kaffa.

Besides this, the remarks made by him in his *Résumé* have given rise to a suspicion which, however strange it may appear, is in my mind so strong as to lead me to think that I can discern, through the veil of mystery in which the matter is at present enveloped, a *reply by way of anticipation* to the objections which have already been here made. I could say more on this subject, and might perhaps be able to point out how what I had written respecting M. d'Abbadie became known to him. But this might be out of place here. All that I will say is, that whoever the individual may be who so intended to render M. d'Abbadie a service, he has, on the contrary, done him an irreparable injury. He has caused to be placed on record, by way of explanation, statements which tell against his friend even more than anything that has yet been adduced from his previous communications to the public.

I will briefly go through these explanatory statements in the order of the objections to which they seem intended to reply.

I. For the purpose of meeting my first objection grounded on the insufficiency of time requisite for the journey to Kaffa and back,³ M. d'Abbadie now calls into being a new solution of his

¹ Pp. 144—161.

² Pp. 654—657.

³ See page 4, *ante*.

difficulties, in the shape of a body of one thousand men at arms ! It will be remembered that, previously to the month of December, 1843, M. d'Abbadie had been for some time the prisoner of Abba Bógibo, king of Enárea,¹ whom he only a short time back styled his "royal friend" and would not permit to be disparaged in any way,² but whom he now describes as "a despot dreaded by all the tyrants who surround him in those regions of despotism."³ The following is a literal translation of that portion of M. d'Abbadie's present narrative, which relates to his first escape from the hands of this tyrant :—"For ten years past, the king of Kaffa had promised his sister in marriage to the king of Enárea. The ardent imagination of those semi-savages having related to the former monarch the wonders of my mysterious life, his curiosity was at length excited, and he refused to give the betrothed [to her promised husband] unless I went to fetch her. It was, therefore, in the midst of an escort of a thousand warriors that I visited a portion of Kaffa."⁴

The first thing that must strike every one here is, the extraordinary fact that such an extraordinary occurrence should never have been mentioned before. However, if the fact be only admitted, no one will think of denying that, with such an armed force, M. d'Abbadie might have been able, like M. Douville in his *Journey to Congo*,⁵ to surmount all the obstacles opposed to him and all the delays inseparable from a journey in the interior of Africa ;—to cross rivers without the aid of suspension-bridges ;—to break through "the interminable formalities on the frontiers of Káffa ;"—and even to traverse, without fear of stoppage, the hostile territories of Djimma-Kaka. Still, all the armies in the world have it not in their power to control the course of the seasons, or to command the waters of rivers to rise and fall at their pleasure ; and our traveller, whose memory is in general not so good as it ought to be, has evidently forgotten his previous statement, that, when he passed the Godjeb in the month of December, 1843, on his way into Kaffa, *as the waters were high*, he crossed the river on a suspension-bridge formed of *lianes* ; but

¹ See page 5, *ante*.

² See Appendix I. page 41.

³ *Comptes Rendus*, vol. xxix. p. 656.

⁴ *Ibid*.

⁵ That famous traveller, who received the large gold medal of the Geographical Society of Paris and was made a foreign honorary member of the Royal Geographical Society of London, on account of a

journey into the interior of Equinoctial Africa *which had never taken place*, only professed to have been accompanied by a body of 460 men. —See his *Voyage au Congo*, vol. iii. p. 1. His flagrant imposition on the scientific world was exposed by Mr. Cooley in a masterly article in the *Foreign Quarterly Review*, vol. x. pp. 163—206.

that, on his return, he *waded across the Godjeb*, of which the greatest depth was then only about four feet.¹ He seems also to have forgotten that, only as late as September 10th, 1847, he wrote as follows:—"But it may well be supposed that the interminable formalities on the frontiers of Kaffa lengthen the journey by a day; *as is the case with all merchants, and as it happened to myself between Sadara and Bonga.*"² M. d'Abbadie had better have trusted to his escort of *merchants*, even with their slower rate of travelling and their day's detention on the frontiers of Kaffa.

And now that this army of 1000 men has been raised for the purpose of fetching the Princess of Kaffa, it remains yet to be explained how it happened that her royal brother, "Gaésharoch Kamo," who had withheld her *during ten years* from her anxious but most patient lover,—the "despot dreaded by all the tyrants who surround him in those regions of despotism,"—and who at length only consented to part with her on being honoured with a visit from "the mysterious stranger," should have allowed himself to be so suddenly deprived of the society of two individuals whom he evidently so much valued. For sudden indeed must have been their parting, or M. d'Abbadie could never have reached the ford of A'muru by the 9th of April, 1844.³ Besides which, it has to be explained why, on M. d'Abbadie's arrival in Enárea with the long-looked-for bride, his "royal friend" should have been so ungrateful as to make him again a prisoner⁴ for his pains.

II. Under the head of my second objection, I have remarked⁵ that M. d'Abbadie's return from the shores of the Red Sea to Enárea, solely for the purpose of again feasting his eyes with the sight of a spot on which they had previously rested during several successive months, and by which he had already twice passed on his way to and from Kaffa, would have been a feat as useless as unprecedented. It now seems that M. d'Abbadie himself is conscious of the insufficiency of such a motive for his second journey to Enárea; and, hence, in his *Résumé* submitted to the Academy of Sciences of Paris, he assigns reasons for that journey totally at variance with those placed on record, in the year 1847, in the *Athenæum* in England and in the *Bulletin* of the Geographical Society of France.

In order that these different statements at different times may be fully appreciated, I will place them under one another.

The first is that in the *Athenæum*, and it is as follows:—

¹ See page 6, *ante*.

² *Bulletin*, vol. xii. p. 153.

³ See page 7, *ante*.

⁴ *Ibid*.

⁵ Page 15, *ante*.

Omokullu, [near Massówa,] August 5th, 1847.—In October 1844 I came down from Gondar to the coast of the Red Sea, in order to replenish my purse and send a few letters to Europe. I then announced that I had proved, by a variety of oral testimony [not a word now of his journey thither] that Kaffa is a peninsula (a *νήσος* of old) encircled by the upper course of the White Nile, and that the main branch of this mighty river is the Godjeb, called Gódafo or Gódapo by the people of Kaffa. *My letters were just gone when I attempted*, with six observed latitudes and a great deal of oral information, *to sketch a map of Great Damot*. . . . *My various notes were scarcely brought together, when I perceived that the basin of the Borora or Umo was much larger than that of the Godjeb*; and the idea that I had misled geographers in a matter of this importance so tormented me, that I resolved to retrace my steps to Enárea, visit if possible the actual source, and add to my previous and insufficient azimuthal angles a sufficient number of new ones to make the position of the famous sources a mathematical deduction from that of the Gondar.—*Athenæum*, No. 1041, of October 9th, 1847, p. 1056.

The second statement was made to the Geographical Society of France, and is to the following effect:—

Gola, Agáme (Abessinias), September 10th, 1847.—In writing three years ago to the *Journal des Débats*, I described the source of the Godjeb as being that of the White Nile. Having written this letter *I went to Gondar, where I set to work to prepare* with the help of my multifarious information [here too not a word of his journey to Kaffa,] *a sketch of the course of the Uma*. *My brother and I perceived that the basin of this river was much larger than that of the Godjeb*; and rather than make you acquainted with our doubts, we resolved to visit Great Damot, separating from one another, so as to be able to verify at the junctions of the several rivers their respective sizes. We came to this resolution with much regret, for we were pining to revisit France. [!] Unfortunately, we could not carry out the whole of our plan, in consequence of two Englishmen [*i. e.* Messrs. Bell and Plowden] having, in a most extraordinary manner, attacked and fired on the tribe of Nunnu, who form a portion of Djimma-Rare. . . . After this, not only did it become impossible for us to set foot in Djimma-Rare, but Europeans generally were proscribed by most of the independent Gallas. We were therefore obliged to content ourselves with visiting the principal source, and establishing its pre-eminence by means of oral information.—*Bulletin*, vol. ix. pp. 110, 111.

In this second statement, though made little more than a month after the one published in England, there is already no slight variation. The preparation of the map, which according to the English statement had been attempted when his “letters were just gone” to Europe from “the coast of the Red Sea,” is in the French statement said to have been deferred till after his return to Gondar, where (as the reader will bear in mind¹) he had left behind him the map which had been drawn at Sakka many months previously, but which had failed to show the great error that *now, for the first time*, presented itself to the mind, not only of himself but of his brother. We will, however, let these

¹ See page 13, *ante*.

discrepancies pass, especially as the two statements agree in the one main point; namely, that it was in the year 1844, while still in Abessinia and before undertaking his second journey to Enárea, that M. d'Abbadie detected his error respecting the Gódjeb, and resolved in consequence to return to that country, for the purpose of there visiting the true source of the Nile, which he then believed to be that of the Omo or Bórora:—in other words, the detection of this error was the *cause* and not the *result* of the second journey to Enárea.

In the statement now given in his *Résumé des Voyages*, which was communicated to the Academy of Science of Paris on the 3rd of December, 1849, M. d'Abbadie presents us with a totally different version of the motives for his second journey. After describing the remarkable incidents connected with his excursion from Enárea to Kaffa just related,¹ he goes on to say:—

Meanwhile my brother, uneasy at my delay, threatened in 1844 to have all the merchants who traded with Enárea arrested, whereupon the king of that country *hastened to send me back to Abessinia*. On my arrival there I heard of the expedition sent by Mohammed Ali towards the source of the Nile, and that M. d'Arnaud, the chief of that expedition, had ascertained that above the island of Jeanker, in 4° 42' N. latitude, the principal branch of the Nile comes from the east. *After having discussed the statements of the natives, my brother and I came to the conclusion that among the various affluents in the vicinity of Kaffa THE GODJEB IS THE PRINCIPAL ONE.* My brother however was of opinion that the question merited a new exploration, and we returned into the Galla country towards the middle of 1845. This time we separated, in order to study on different roads those countries in which it is so difficult to deviate from a route traced beforehand,² and often impossible, without long delays, to retrace one's steps. *We met together again in Enárea at the end of 1845: OUR INTENTION WAS TO GO TO THE SOURCE OF THE GODJEB; but the discussion of our observations made us decide that the river Omo is the principal affluent of the White River, and that its source is in the forest of Bábia on the southern frontier of Enárea.*—*Comptes Rendus*, vol. xxix. pp. 656, 657.

In this last statement we find all that had been so distinctly and circumstantially related only two years before unceremoniously set aside. We have here no sketching of maps, whether at Massówa or at Gondar;—no consequent detection of the error with respect to the Godjeb, either by M. d'Abbadie alone or with the aid of his brother;—no tormenting idea of having misled geographers in a matter of so much importance;—no resolution to retrace his steps to Enárea *for the purpose of visiting the source of the Omo* and making its position a mathematical

¹ See page 29, *ante*.

² And yet, on his first journey, M. d'Abbadie would appear to have made no difficulty in "deviating from the route traced beforehand," on

which his brother, "uneasy at his delay," was anxiously expecting him, and by which the King of Enárea had "hastened to send him back."—See pages 7, 8, *ante*.

deduction from that of Gondar;—no deep regret at having to do so on account of the pining to revisit France. All these stated facts, these strong motives, these deep feelings, are to be considered—dreams! We are to look at the last account as the authoritative revelation on the subject; and according to this last announcement it would appear that the two brothers, after a calm and deliberate consideration of the entire question, came to the conclusion that the Godjeb was, as the elder had always believed and as he had written to Europe in October, 1844,¹ the principal branch of the Nile. But because *M. Arnauld d'Abbadie* entertained the opinion that “the question merited a new exploration,” off they both started with the “intention to go to the source of the Godjeb” in the neighbourhood of Kaffa; and it was only when they “met again together in Enárea at the end of 1845,” that “the discussion of [their] observations made [them] decide that *the river Omo was the principal affluent of the White River* ;”—and this although we have a most explicit previous statement that it was *just after he had sent off his letters to Europe from Massówa, in Northern Abessinia, in October, 1844*, that he had “perceived that *the basin of the Bórora or Umo (Omo) was much larger than that of the Godjeb*, and the idea that [he] had misled geographers in a matter of this importance so tormented [him], that [he] resolved to retrace [his] steps to Enárea, visit if possible the actual source, and add to [his] previous and insufficient azimuthal angles a sufficient number of new ones to make the position of the famous sources a mathematical deduction from that of Gondar.”

I will not stop to enquire how it will be attempted to reconcile these improbable and directly contradictory statements, or how the public will receive the attempt if made; but I feel persuaded that the geographers whom *M. d'Abbadie* has expressed himself so anxious not to mislead must and will take care that they are not misled any longer. For my own part, I cannot look upon the one statement as being more likely to be true or more deserving of credence than the other, and I must therefore reject them both; and in their place I will proceed to give what, after a full consideration of all the circumstances of the alleged second journey to Enárea, appears to me to have been the real cause of it.

My impression is, that instead of quitting Godjam for Enárea and Kaffa in the month of May, 1843, *just before the setting in of the rains, which commence yearly in the month of June*, *M. d'Abbadie* settled down in that province and occupied himself

¹ See page 31, *ante*.

with collecting oral information respecting the countries lying to the south of the Abai, in the same way as I had done during the rainy season of the preceding year, 1842. Only there was, I conceive, this difference between us,—that while I communicated to the public my information such as I had received it, M. d'Abbadie worked up his materials into the more interesting form of a journey actually accomplished. And as, after my departure from Godjam in the beginning of 1843, M. d'Abbadie and his brother were left alone in that province, except during the brief interval of M. Lefebvre's rapid passage through the eastern portion of it about the time when M. d'Abbadie says he set out from Baso on his way to Enárea; he “fondly—and as [he] now learn[s] foolishly—hoped to be the *only* authority on the subject,”¹ and therefore fancied he might claim the merit of an expedition to Kaffa without the risk and trouble of performing the journey. On his arrival in Northern Abessinia, however, towards the end of 1844, he there met Messrs. Bell, Plowden and Parkyns, three English travellers;² and having learned from “a printed letter of M. Fresnel,” the French consul at Djiddah, that “a visit to the sources of the White Nile was also the object sought” by those gentlemen,³ he feared, not without good cause, that, should they succeed in their undertaking, they would soon make the world acquainted with his own shortcomings. He consequently found himself under the necessity, *bon gré, mal gré*, of retracing his steps; and, having attached himself to Messrs. Bell and Plowden, he accompanied them to Baso, where he “advised Mr. Bell to proceed with his companion amidst the ordinary caravan,”⁴ while he himself “formed the bold plan of going at once from Baso to Limmu [Enárea] with five servants only,”⁵ and thus got the start of the English travellers. On the other hand, his warrior-brother,—who on a previous occasion had with his well-armed troop bid defiance to the potent Abba Bógibo himself,⁶ but was now most pacifically disposed,—remained behind with Messrs. Bell and Plowden, who soon got entangled in a quarrel with the Gallas,⁷ in which blood appears to have been shed.⁸ Those gentlemen would most probably give an account of the transaction somewhat different from that related by M. d'Abbadie in the columns of the *Athenæum*;⁹ but, at all events, the result appears to have been that M. Arnauld d'Abbadie

¹ See Appendix I. page 44.

² See *Athen.* No. 1041, p. 1056.

³ *Ibid.*

⁴ *Ibid.*

⁵ *Ibid.*

⁶ See page 7, *ante*.

⁷ See page 31, *ante*.

⁸ See *Athen.* No. 1041, p. 1057.

⁹ *Ut supra*.

managed to give them the slip and to join his brother, wherever he then was, while the English travellers were effectually prevented from proceeding on their intended journey.

III. As to my third objection, founded on the difficulties and contradictions presented by the geodetical and astronomical observations of M. d'Abbadie,¹ the following is the manner in which he endeavours to get rid of that:—"The observations of latitude and azimuths, of which several were made by my brother, were for the most calculated on our journey; *but I have desired to subject them to the control of a new calculation* before presenting them here."²

M. d'Abbadie might have rendered this "new calculation" unnecessary by publishing his original notes of the observations themselves and leaving them to be *calculated* by others; which would besides, in this "cooking" age, have been much more satisfactory. However, I am glad to perceive that Sakka has once more become "the *capital* of Enárea,"³ and that its position, which was formerly "in $8^{\circ} 12' 30''$ North latitude, the star observed not having been corrected for aberration and nutation,"⁴ is now made to be in $8^{\circ} 11'$ North latitude.⁵ M. d'Abbadie does not inform us whether the difference of $1' 30''$ between these two determinations of the position of Sakka arises from the "correction for *aberration and nutation*;" but, if so, the fact is curious, and I am sure that astronomers would thank him for the full details of so remarkable a phenomenon. Meanwhile, and in the absence of more ample information, I am disposed to retain the opinion already expressed by me⁶ as to the short distance most probably existing between Sakka and the source of the Gibbe. It has been seen that in the first instance M. d'Abbadie made that distance to be rather more than twenty-six statute miles.⁷ It is now reduced by him to about twenty-four miles and a half. I therefore confidently look forward to yet more favourable results from the "new calculation" to which his observations are being subjected.

One circumstance, however, connected with the observations made on the second journey cannot fail to cause astonishment. It is that M. Arnauld d'Abbadie should have been employed to make observations of latitude and azimuths, seeing that the result of the only astronomical observation made by him of which the scientific world has any knowledge, is far from inspiring confidence in what he may have done to assist his more skilful

¹ See page 17, *ante*.

² *Comptes Rendus*, vol. xxix. p. 657.

³ *Ibid.* p. 656; and see page 12, *ante*.

⁴ See page 25, *ante*.

⁵ *Comptes Rendus*, vol. xxix. p. 656.

⁶ Page 26, *ante*.

⁷ Page 25, *ante*.

brother. The particulars of the observation in question are thus recorded by the latter :—"Having led you on the road to Enárea, I must inform you *en passant* that Démbecha, which appears in my printed itinerary, is situated in $10^{\circ} 7' 50''$ North latitude, from an observation made there by my brother with a box-sextant. This figure will perhaps have to undergo a slight correction, when I shall have calculated the five or six observations made at Démbecha."¹ It is not easy to say which is the more remarkable—the skill with which M. Arnauld d'Abbadie was able to observe to *ten seconds* with a box-sextant, which even on the vernier was certainly not divided to less than whole minutes,—or the extraordinary error of *twenty-five minutes* on the observation itself! The latitude of Démbecha, as resulting from four observations of the sun made there by myself, is $10^{\circ} 33'$ North.²

IV. On a careful perusal of the foregoing remarks, it will not be doubted that M. d'Abbadie has, in his "*Résumé des Voyages*" submitted to the Academy of Sciences of Paris, endeavoured to meet the allegation which forms the subject of my fourth objection;³ namely, that he had desired to suppress his first journey to Enárea and Kaffa, and to found his scientific reputation on his second journey to Enárea alone. It is for the public to judge how far he has been successful in this endeavour, and with what benefit to his reputation.

¹ *Bulletin*, 2nd Series, vol. xiv. p. 240.

² The following note of the observations made by me at Démbecha is extracted from my Diary :—

| | | | | | | |
|-----------------|---|--------|-------------|--------------|------|----------------|
| 1842, Jan. 30th | ☉ | double | merid. alt. | 122° 58' 15" | lat. | 10° 33' 29" N. |
| " 31st | ☉ | " " | " | 122 34 15 | " | 10 32 3 |
| Feb. 2nd | ☉ | " " | " | 124 40 30 | " | 10 32 58 |
| " 6th | ☉ | " " | " | 127 3 30 | " | 10 33 6 |
| | | | | | | 131 36 |

Index error of Sextant — $2' 15''$

mean latitude $10^{\circ} 32' 54''$ N.

See also the *Journal of the Royal Geographical Society*, vol. xiv. p. 65.

³ See page 26, *ante*.

APPENDIX.

I.

THE following letter, headed *Remarks on Dr. C. Beke's Paper "On the Countries South of Abyssinia,"* was addressed by M. d'Abbadie to Mr. Ayrton, and by him handed to the Editor of the *Athenæum* for publication. It appeared in that Journal on October 16th, 1847, No. 1042, pp. 1077, 1078. My Paper, to which it relates, was printed in the *Journal of the Royal Geographical Society*, vol. xiii. pp. 254-269.

In now reprinting M. d'Abbadie's letter for the purpose of refuting its contents, I have taken each paragraph and answered it separately. It begins thus:—

As I have but little time to point out a great number of *errata*, I shall be as brief as possible.

Dájach Gosho was born in Nazrit (Gojam), and his father D. Zawde was also a native of Gojam: D. Gosho is therefore not of Galla extraction.

When in Godjam, I collected the materials for a biographical memoir of Dédjach Goshu and his father Dédjach Zaudi. From this memoir the following particulars are extracted. About the end of the 17th century, in the reign of Hátsie Yásu Tálak—the Emperor Joshua the First—a Galla of the tribe of A'muru, whose name I could not ascertain, crossed the river Abai in company with many of his countrymen, and settled in the province of Damot, where he had lands granted to him by the Emperor at Yedingra, in the district of Yemálog. He had a son or grandson named Sillin, who married Cherit, the daughter of Racho, another Galla settler in the adjoining district of Dinn. Racho was likewise the father of Amáro, Tullu, Róggie, Dagágwo, and several other sons; whose descendants still dwell in Damot as simple country people. In my excursions through that province I met with individuals of the lowest class, who were pointed out to me as cousins of Dédjach Goshu. By his wife Cherit, Sillin became the father of three sons; of whom the eldest was *Ya Kristos Zaud*—"the Crown of Christ"—familiarily called and commonly known by the name of *Zaudi*.

Thus Dédjach Goshu, the son of Zaudi, is of Galla extraction: a fact as notorious throughout his dominions, in which M. d'Abbadie, like myself, resided some length of time, as it is in England that Queen Victoria is of German extraction.

O'mar Dájat [Nedját], who indulges often in that species of conversation called "fibs" by some and "yarn" by others, has never been beyond Kafa;—which is well proved by the distortion of all geographical features in the neighbourhood.

That 'Omar must have been beyond Kaffa (see page 45, *post*) is proved by his description of the Suro negroes of the valley of the Godjeb, as compared with that of the inhabitants of the valley of the White River given by M. Werne. See further on this subject, pages 49, 50, *post*.

Wálagga is full of men and merchants. There is no *h* in Didesa—I am positive of

that. The forest which contains the source of the Gojab does not extend to Inarya [Enárea],—as I passed between both in a country open and pretty well cultivated.

I merely said—“Wallegga is an extensive plain and *in great part* desert country.” M. d’Abbadie, like myself, knows nothing of this country but from oral information.

With respect to the spelling of the name *Dedhésa*, M. d’Abbadie will tell us by and by (see page 53, *post*) that, when affirming thus positively and unqualifiedly that there is no *h* in this word, he “said so merely on the assumption that *h* stands always for an aspirate!”

Of the forest I said—“In this forest and in its immediate vicinity, are the heads of the Godjeb, Gaba, and Dedhésa, the first of which streams is but a small brook, where it is crossed on one of the routes from Guma to Kaffa. This forest *appears to extend* westward and northward through Wallegga, and *eastward to Enárea*, in which country my first informant, Dilbo, describes the Gibbe known to him as rising in a large forest.” This fact M. d’Abbadie *circumstantially* denies, and, as he asserts, from his own personal knowledge. But as he can only have “passed between both in a country open and pretty well cultivated” on his alleged journey from Enárea to Kaffa; and as it is believed that, in the preceding pages, it has been sufficiently proved that that journey did not take place; this pretended personal evidence is worthless—to say nothing else of it. But more than this:—In his letter of August 5th, 1847, (*Athen.* No. 1046, p. 1057,) M. d’Abbadie speaks of having had, while at Sakka, “to the south the forest of Bábia and the sources of the Enárea Gibbe,” and “on the right [west] the highland forest which, under different names, contains the *sources of the Godjeb, Baro, and Dedhésa*” and he does the same again in a recent communication in the *Bulletin*, vol. xiii. p. 299. Now, as in his last maps (*Bulletin*, vols. ix. and xii.) the sources of the Dedhésa and Gibbe are placed almost contiguous, and both are situate in the south of Enárea; and as, according to his own showing, the forest which contains the source of the Godjeb *contains also that of the Dedhésa*; it follows, from his own evidence, that the forest of which I spoke *does* extend to Enárea, notwithstanding his assertion to the contrary.

No Gallá country between the Abbay and the Gojab is without a settled form of government; for they are all small republics, with chiefs changed every eight years. Each tribe has several chiefs—not only *one*.

Too little is known of the customs of the Gallas to warrant any such sweeping assertion—a *negative* one too—as this of M. d’Abbadie’s. Dr. Tutschek, in his *Dictionary of the Galla Language*, p. 21, speaks of customs different from those described by either M. d’Abbadie or myself. And M. d’Abbadie himself allows virtually (see pages 41-43, *post*) that Enárea, Guma, and Djimma-Káka, all of which are “Galla countries between the Abai and the Godjeb,” are *hereditary monarchies*!

The districts of Galla near the Abbay are not on such very friendly terms with Gojam; as the former are continually murdering the latter, and all the passes of the Abbay are consequently looked on as replete with danger. I cannot, with Dr. Beke, call this a friendly footing. These Galla pay tribute when an army comes to exact it, —not otherwise.

I stated that those districts “are *more or less* on a friendly footing with the rulers of the peninsula of Godjam, to whom most of them pay tribute.” The mode of collecting the revenues of the State differs in different countries. In Abessinia, the prince or one of his chiefs goes in person with his army to collect them, and in case of refusal his soldiers *distrain*. In England, tax-gathers and custom-house officers are sufficient for the purpose. The

following remark of an intelligent Oriental, Assaad y Kayat, on the collection of the revenue in England, is quite to the point:—"The easy way in which the revenue is collected is beyond all praise;—*not a single musket employed in the collection of nearly sixty millions annually.* May other nations learn how the law may be upheld *without having recourse to arms.*"—*A Voice from Lebanon*, pp. 127, 128.

A man from Limmu mentioned his clan without adding the name of Sobo;—which may, however, exist. Not so the identification of the Didesa and Yabus, which I was repeatedly assured are two distinct tributaries of the Abbay; the Yabus, called Dabus by the Galla, rising in or near Sayo.

Limmu-Sobo, as distinguished from the Limmu of Enárea, *docs* exist. (See *Journ. Roy. Geogr. Soc.*, vol. xvii. pp. 17-21.) Beyond the former country is a large river, respecting which I said—"This river, in its position, coincides with the Yabús, and is therefore *probably the Dedhésa in the lower part of its course.*" What I thus stated is substantially correct. The Yabús, called *Inbúss* by M. Russegger and *Dabús* by the Gallas, (*ibid.* p. 32.) is a tributary, not of the Abai, but of the Dedhésa; so that the lower course of the two streams is one and the same. It is not till about fifty miles below the confluence of the Yabús that the Dedhésa is joined by the Abai. (See the map facing the Title-page.)

Neither of the two Sibú nor of the two Lega is comprised in Obo.

I was informed by more than one person that Sibú and Leka *are* sub-tribes ("children") of Wobo; and they are so marked in a map drawn for me by Dedjach Goshu. I prefer this evidence to M. d'Abbadie's *ipse dixit*.

There is no country called Hither Jímma; the Jímma near Gudru has for the last twenty years been on very bad terms with Gojam. Dr. Beke must have written here the words *good terms* by a *lapsus calami*, and must be excused.

This is a mere quibble. I spoke (p. 267) of "*Hither* or Tibbí Djimma" as contradistinguished from "*Further* or Kaka Djimma." The two expressions were used by me in juxtaposition, and could not be misunderstood. The people of this "*Hither*" Djimma, like those of Gúderu, "*on account of their connexion with the market of Baso*, find it to their interest to keep constantly on good terms with their neighbours of Godjam." When at Yejúbbi in the years 1842 and 1843, I was in frequent communication with natives of Djimma, who visited the weekly market of Baso.

Mächa means *country*; and has never been applied to Kutay—in my hearing at least—as the name of a country.

I must again repeat that Kuttai is one of the sub-tribes of Mecha, Mächa or Maitsha, and that this latter is the name of one of the principal tribes of the Gallas, as I heard both in Shoa and in Godjam. A large portion of this *tribe* of "Maitsha" crossed the Abai and settled in the northern part of the peninsula of Godjam, to which they gave their name; and "Maitsha," *as the name of a country*, appears in every modern published map of Abessinía! Further, in the *Journals of the Rev. Messrs. Isenberg and Krapf*, p. 213, the latter missionary expressly enumerates the "Kuttai," into a portion of whose country he entered in company with M. Rochet on February 2nd, 1840, among the sub-tribes of the "Maitsha Gallas."

At a recent meeting of the Geographical Society of France, (see *Bulletin*, vol. xiii. p. 333,) M. d'Abbadie most amusingly "expressed his astonishment that M. Beke, who had never set foot within the country of Kaffa, or even in the country occupied by the Gallas, *the sons of Metcha*, of which country the entire width (being a distance of at least 150 miles,) at all times separated him from Kaffa, should presume to explain, that is to say criticise,

a journey into those countries, into which no European even penetrated either before or after M. d'Abbadie." I will only express my astonishment at M. d'Abbadie's unfortunate loss of memory, which makes him so constantly assert things which he has elsewhere denied. Metcha, then, according to his last statement, does not merely mean *country*: it is, after all, *the name of a tribe*,—and consequently *the name of the country inhabited by that tribe*,—as I asserted and he denied! And the Kuttai are a sub-tribe of "the sons of Metcha," inhabiting a portion of the extensive district alluded to by M. d'Abbadie.

The caravans from Baso to Inarya on leaving Jimma do not enter Nonno,—a feat as difficult as entering Hanover on leaving Switzerland. Nonno has a regular but feeble government, and is thickly inhabited.

As the entire distance between Baso and Enárea is less than 120 miles, the comparison of what is *only a small portion of the distance* to that between Hanover and Switzerland is absurd; if, indeed, it is not intended to mislead. I do not find "Nonno" marked in M. d'Abbadie's map; but in its position, its physical character, and its social and political condition, it corresponds with his "desert of Chibbe." (*Athen.* No. 1041, p. 1057.) I therefore believe my description of Nonno to be substantially correct.

The communications said to be cut off in February 1843 were only so with Dr. Beke and his informers; but not in reality, as trade was then brisk in the Galla country.

I did not speak of the state of trade in the Galla country. And I said "four months previously to," not in February, 1843. My words were—"It is in Nonno that the Káfilahs [between Baso and Enárea] find the greatest obstacles, being frequently detained several months; *as was the case during the last season of 1842-3, when, for four months previously to my departure from Baso, (in February 1843,) all communication between the two countries was cut off.*" This fact I now unqualifiedly re-assert. M. d'Abbadie himself (*Athen.* No. 1041, p. 1057) describes "the dangerous desert of Chibbe," which, as before stated, corresponds with the locality in question, as being "the field of battle of Enárea, Guma, Bunho, Djimma-Hinne, Leka, and Bilo." No wonder, then, that it should often be impassable for the caravans, as it was at the time to which I alluded.

A small part only of the Limmu of Inarya is turned Mohammedan; and those even still adore the Spirits of the mountains and offer them sacrifices.

This point is not worth a question. I spoke in general terms, and mainly to show that the inhabitants of Enárea *are no longer Christians*, as by geographers they are usually stated to be. And I said that "the Limmu tribe of *pagan* Gallas long ago made themselves masters of the country. . . . Hence the names of Limmu and Enárea are used as almost synonymous. They have, however, since turned Mohammedans."

Saka—not Sakka—termed a "great emporium" by the learned Doctor, is nothing more than a straggling hamlet or village. The king's slaves never watch trees—too abundant to be precious.

The subject of Sakka (I retain the spelling,) will be discussed in the sequel (page 51). In the very next sentence, M. d'Abbadie states that he was told that the king of Djimma "is hard [at work] planting coffee trees." Now I confess that I cannot understand why trees that are worth planting and bear a berry currently saleable should be "too abundant to be precious."

Coffee is never sold in Inarya by the load; but by a small measure (a horn cup) supposed to contain a pound. When the coffee has not been deprived of its pericarp it is sold in bags made of a single goatskin; the price is at the cheapest four or five

pounds for an amole. In Inarya no mules are ever hired. There is scarcely any coffee in the valley of the Gojab; but Abba Jifara, king of Jimma Kakka, is hard planting coffee trees, as *I am told*.

I see no sufficient reason for questioning the correctness of the information obtained by me respecting the sale of coffee in Enárea. My informants were veracious persons, and had no object in misleading me. As regards the existence of coffee in the countries beyond Enárea, I said—"In Djimma and Kaffa, *small quantities* only are found, as *likewise in the valley of the Godjeb*;" and this M. d'Abbadie confirms.

"The approach to Inarya is at (the) Kella" means simply that it is at the frontier of Inarya,—a truth too obvious to be inculcated to our present intelligent generation.

From this, M. d'Abbadie would wish it to be inferred that "Kella" means "frontier." In the passage, however, on which the following is a comment, I said that "the approach to Enárea from the N. is at *Kella*—a word of frequent occurrence, which has the same signification as the Amharic *ber*; viz., a gate or pass." And I find in Dr. Tutschek's *Galla Dictionary* (p. 34) the following definition of the word *Kela* (Kella)—"gate, door; especially that which is made through the rampart." In this instance, therefore, as in most others, M. d'Abbadie's "truth" is anything but obvious.

I cannot suffer the learned Doctor to disparage my royal friend Abba Bagibo, king of Inarya;—as he was decidedly victorious in the last contest with Jimma. The great majority of his subjects, and even some of his principal officers of state, are still heathen.

I stated that "Enárea was till lately at war with the neighbouring countries of Djimma and Guma: with the former to much disadvantage. But peace has now been established between the monarchs of the three kingdoms, which peace has been cemented by their union by marriage, and still more by the adoption of Islamism by the kings of Djimma and Guma. In Enárea this religion has long since usurped the place of heathenism; this country being the principal place of residence of the Mahommedan merchants of Abessinia, whose precepts and example have had, and still continue to have, most surprising results in the conversion of the Gallas." I do not see anything to alter in this statement; except, perhaps, that the peace which existed between Abba Bógibo and Abba Djifár may since have been broken.

If "manufactures" mean literally things made with the hand, Dr. Beke is perfectly right as to the Limmu manufactures: but not so if "manufactures" mean something on a large scale. The king of Inarya, however, prefers the *toga* of Abyssinia, and his finely ornamented cloths come from Kafa and from the Gurage. This is a fact, and admits of no discussion.

What "manufactures" were intended by me is self-evident, notwithstanding the doubt which M. d'Abbadie would wish to raise. I spoke of "daggers with well-wrought blades and ivory handles very elegantly inlaid with silver, as well as cloths with ornamented borders, brought from Enárea, such as would in vain be looked for in Abessinia." M. d'Abbadie's "fact which admits of no discussion," corroborates my further statement that "throughout the Galla country, of which Shoa may be regarded as a part, the state of manufactures is much superior to that of *Abessinia, properly so called*." For Gurágie is, in part at least, tributary to Shoa; and Kaffa, though strictly speaking it is not a part of "the Galla country," is still so connected therewith locally, that it may be classed with it when speaking generally (as I did) of *the countries south of Abessinia*, as contradistinguished from Abessinia itself.

Inarya *produces* little or no ivory; for a simple reason—viz. there are no elephants

in the country. It possesses three commercial outlets:—1. Baso by Jimma Rare and Gudru; 2. Shāwa, or rather Wari Haymano, by Agabdja; 3. Wālagga. The trade by Agabdja is regular, and almost all the coffee goes by that road.

If there is any force in M. d'Abbadie's reason why ivory is not the "produce" of Enárea, it must equally apply to his statement that that country produces *little* of that commodity. But this playing with words is childish. Assuming it be true that there are no elephants in the country, —upon which point it is unnecessary to express an opinion,—we have the evidence of M. d'Abbadie himself that "the most disagreeable dangers of Chibbe are *herds of elephants*"—the said "dangerous desert of Chibbe" reaching to "the very *Kella* or frontier gate of Enárea. (See *Athen.* No. 1041, p. 1067.) Here then the people of Enárea would obtain ivory in quantities, which they would *produce*—that is to say, "offer to the view or notice" or "exhibit to the public"—in their markets. And that ivory is really common in the markets of Enárea, we have the evidence of M. d'Abbadie himself, in contradiction of his own previous statement. For, in speaking of the merchant 'Omar Badúri, (see page 51, *post*) he says that he "kept servants in the markets of Gómbota and *Sakka* to buy up civet, slaves, or *ivory*!"

M. d'Abbadie states that one of the outlets for the coffee of Enárea is "Shoa, or rather Warra Háimano, by Agábdjai;" which is much the same as if it were said that England exports coffee to France, or rather Germany, by Belgium. For, the uninitiated must be informed that Warra Háimano of which the capital, Tanta, was visited by Dr. Krapf in April, 1842, (see his *Journals*, p. 341,) lies considerably to the north of Shoa, and has, indeed, less to do with the latter country than Germany with France. From my own personal knowledge I can assert that the Warra Háimano merchants purchase the Enárea coffee at *Baso* market.

I have been assured that Bagibo is *not* the name of a horse; but will not allow mere oral information to impugn the authority of the learned Doctor. Sauna Abba Rago, grandson of Abba Gom-ol (I protest against an *h* here), is *not* the heir apparent of Ibsa Abba Bagibo. I have not time to turn up authorities,—but the king of Inarya has at least fifteen residences, not seven only. His principal seat is at Garuqe, near the tomb of the old warrior Bofu Boko, *alias* Abba Gom-ol. The remarks on slavery, &c., apply to Inarya, not to Guma.

In No. 662 of the *Athenæum*, (p. 532,) M. d'Abbadie says—"The king of Enárea, who, according to established custom, is known by the name of his horse (Abba Bagibo, *i. e.* father or master of the horse Bagibo)." The reader may believe whichever he pleases of these two directly contradictory assertions of M. d'Abbadie.

In speaking of the king, Abba Bógibo, I stated that "his father's name was Bofu, surnamed Abba Gomhol [I shall defend the spelling of the name by and by]; and his eldest son and heir apparent is Sanna, or Abba Rago." Does M. d'Abbadie mean to assert that in Enárea the *eldest* son is not the heir apparent of his father? If not, I do not see the force of his objection. I will not dispute the alleged larger number of the monarch's residences. And yet there may be only *seven* that are specially deemed as such. My remarks on slavery in Guma were—"The inhabitants of Guma were, more than those of any other country, doomed to slavery; as *their sovereign*, who has the character of extreme severity, is in the habit of selling whole families, for offences—sometimes of the most trifling nature—committed even by a single individual." According to M. d'Abbadie, it is not Abba Rebu, king of Guma, but Abba Bógibo, king of Enárea, to whom these enormities are attributable. I thank him for this information respecting the revolting practices of his "royal friend." I always knew Abba Bógibo to be an extensive slave-dealer; but I was not aware of his wholesale dealings in his

own subjects. At the same time I must express my belief that the practice adverted to prevails likewise in Guma, and probably to a greater extent than in Enárea.

Inarya has lost nothing by Jimma. The father of Sauna Abba Jifara was Gangela Abba Mägal. I never heard Folla called Polla; and slaves are no longer mutilated there.

I was assured that the dominions of Sanna, surnamed Abba Djifár, king of Djimma-Káka, have "been much enlarged by acquisitions lately made at the expense of Enárea;" and I see no reason to doubt the correctness of this information. The father of Abba Djifár, according to my informants, was "Dángila, surnamed Abba Nagál." Polla for Folla is manifestly a dialectic difference, just as M. d'Abbadie tells us (see page 31, *ante*) the river Godjeb is called Gódepo and Gódefo. As M. d'Abbadie only knows Folla by hearsay, it is rather hazardous on his part to assert that the custom of mutilating slaves mentioned by me, *which by implication he admits to have prevailed*, no longer exists.

The Janjaro government was not capriciously despotic. The whole country, or nearly so, has been now subdued by Abba Jifara, who has made the king his prisoner.

The precise character of a government is a matter on which difference of opinion may fairly exist. That of Djándjaro is however admitted by M. d'Abbadie to have been "despotic," even if not "capriciously" so. The conquests adverted to by M. d'Abbadie may possibly have occurred subsequently to my departure from Abessinia, and they therefore in no wise invalidate my statements.

The mutilation of the breasts proceeded only from a foolish idea that men ought not to have nipples; and a Janjaro cunningly compared that custom to mine of shaving my head for my turban. Shaving the beard and cutting the nail of the little finger (which the Yamma or Janjaro never do) are in their estimation feats of the same order.

My *facts* being admitted, I do not see why the *reasons* for them given by my informants should not be quite as correct as those stated by M. d'Abbadie.

I was not aware, until informed by the Doctor, of the existence of *castes* in Abyssinia.

The term *caste* is properly applicable to classes of people of different origin inhabiting the same country, who do not live, intermarry, or even eat with each other. And this not merely in the sense of the original Portuguese word *casta*, but even with the restricted signification in which the word is used with reference to the inhabitants of India. I am therefore justified in speaking of *castes* in Abessinia.

The two principal tribes of the Janjaro are the Yamma and Yangara: the first is generally used to designate the country. The Yamma call themselves Christians.

I was informed in Godjam that the inhabitants of Yángaro are pagans—not Christians. Dr. Krapf says (*Journals*, p. 258) "*It seems to me that the people of Sentshiro [Djándjaro or Yángaro] were formerly Christians, because they have circumcision and some Christian feasts; but otherwise they do not appear to know anything about Christianity.*"

Kucha and Kurchash* are nearly one hundred miles, or more perhaps, distant: the latter is really, and the former is nominally, a Christian country. Botor, a Galla country, not Christian, has never subdued Kurchash;† for a similar reason that Hungary has not conquered France,—viz., distance and inferiority of numbers.

* Printed "Kuroosh" in the *Athenæum*.

† *Ibid*.

My words are "Kucha appears to be the same as Ku[r]chash, which is described as a Christian country, entirely surrounded by pagan Gallas." As M. d'Abbadie has given the distance between this country and Kucha, it is to be regretted that he did not likewise state that between Kurchash and Bótor. Had he done so, it would have been seen that his comparison of those countries to Hungary and France was only intended to mislead. For, in fact, they are *close together*, in the vicinity of Agábdjai. In M. d'Abbadie's map in vol. ix. of the *Bulletin*, Kurchash (Kurcax) is placed immediately adjoining Agábdjai; but in his last map in vol. xii. the name has been erased!

The Gojáb is too far from Walaytza (Walanu or Jirgo) to be crossed; and when crossed, boats are never used. This assertion of the Doctor reminds me of the rafts with high gunwale, &c., which Capt. Harris so generously put afloat on the Gojáb,—while, alas, this floating property has no existence in reality, unless, as in the Boodha religion, thought only is reality.

The name "Godjeb" was applied by me, as it was in the first instance by M. d'Abbadie himself, to the main stream; of which he said the Bako was only a tributary, (see page 10, *ante*.) though he has since converted the latter into the lower course of the Godjeb. (*ibid.*) In speaking therefore of the "Godjeb" I meant the main stream, whatever name M. d'Abbadie may now please to give it; and this "Godjeb" truly divides Woláitsa (Walaytza) from Kullo, as is shown by M. d'Abbadie's own maps in vols. ix. and xii. of the *Bulletin*. In connexion with this same river "Godjeb," I perceive in those maps the words "Bac de Gongul," that is to say, the "Gongul ferry," to which allusion is made in his letter of February 17th, 1848. (*Athen.* No. 1105, p. 1331.) If this ferry over the "Godjeb" is not by means of boats or rafts, perhaps M. d'Abbadie will explain what other means of passage are adopted.

I am afraid that I must again quarrel with Dr. Beke about the letter *h*; for I cannot bring my ears to detect an *h* in *tato*, the Kafa word for king. On this point I cannot give way to my learned rival in Ethiopian geography. Other points I may concede, but this unfortunate *h* I cannot; and if heaven and earth were brought together, *impavídum ferient ruinae*, for I should die a martyr to my senses.

This rodomontade will be answered in the sequel (pages 53-55).

The present king of Kafa is called Kamo, and his reigning title is Gaeshároch. His rule is, I think, not quite despotic; for on assuming his golden ring he swears to observe the laws and customs of the land and not to punish unjustly. When, however, he does extend his prerogative too far, he is punished by the old-fashioned method of turning him out of the country. European states, with their far-famed wisdom, have sometimes been at a loss to find a better remedy. The king of Kafa has 10,000 horse;—a small force compared with the army of Ras A'ly, which is only a fraction of the forces of Abyssinia. The *tata* (or *tato* with the article) of Kafa claims descent from Minjo, and not at all from the imperial family of Ethiopia.

There are only two churches in the country,—at least I was told so at Bonga. The sanctuaries in Kafa are not churches. I have lived with Kafa people for the last two years; and never heard the history of sheep, fowls, leather, &c.. But the positive assurances of the learned Doctor may be more weighty than my simple *don't know*; and I will not venture to suspect a word of this Bonga information so unexpectedly come to me from Europe, when I fondly,—and as I now learn foolishly,—hoped to be the only authority on the subject, being the only European who ever trod on Kafa ground. But, as the *Athenæum* observed, a visit to a country does not imply that one knows that country.

Dollars are well known in Kafa;—for the merchants of that country asked for almost nothing else. There is no gold in Seka (not Sieka).

As I imagine that it has been convincingly proved in the preceding pages that M. d'Abbadie never "trod on Kaffa ground," his contradiction of my

statements on these various matters of detail respecting that country possess, *at most*, no greater authority than those statements themselves. As I have before said, I see no reason to doubt the general correctness of the information which I obtained in Abessinia; though I am far from insisting on it when opposed by sufficient testimony. But while correcting this for the press, I have found it stated in page 258 of Messrs. Isenberg and Krapf's *Journals*,—"The currency of Caffa consists in pieces of salt, *silver money not being known*;" and again,—“The Sentshiros [Djándjaros], like the Gallas, *do not eat hens. Goats also are not eaten*.” As this information was obtained by Dr. Krapf in Shoa, and mine by myself independently in Godjam, the coincidence is more than enough to outweigh anything M. d'Abbadie may think proper to assert to the contrary.

Suro is not subject to Kafa. Seka is near Bonga towards the west, and not beyond Suro; at least Nalle, my Suro informer, never mentioned Siekka. The Arabs who go for trading purposes only to the Suro country never pass by Walagga. I have never heard Derbaddo mentioned.

I may mention that in page 2 of his paper the learned Doctor tells us that O'mar had been beyond Kafa,—while in page 13 he tells us implicitly, that he has not, because the road is impracticable. When Dr. Beke makes slips like these, I may be excused if I doubt the rest of his derived information, now and then at least.

As this remark is a direct imputation against my veracity, I at once answered it in my letter of October 30th, 1847, inserted in No. 1044 of the *Athenæum*, p. 1127. It will there be seen that M. d'Abbadie's objection is founded on a mere quibble. 'Omar had been to Suro, a country “beyond Kaffa” it is true, *but subject to it, and therefore in one sense a part of it*; though he was unable to penetrate “beyond Kaffa” *into the adjacent hostile countries*. As I there stated, “an Englishman who had never crossed the sea might just as well be charged with a ‘slip,’ for saying at one time that he had never been out of England, and at another time that he had gone out of England *into Wales*.”

It is proper to explain that M. d'Abbadie's reference to pages 2 and 13 of my Paper are caused by the paging of the separate copies of it which I received from the Royal Geographical Society; one of which copies was presented by me to Mr. Ayrton, in April, 1845, and by him forwarded to his friend M. d'Abbadie. The pages of the article in the Society's Journal (vol. xiii.) are 255 and 266.

Suro, Gimira, Nao, Doqo, and Yombo informers never mentioned the Goje River. But weigh the evidence and try to believe with Dr. Beke that it exists—it is the most convenient method of closing the debate.

'Omar's Godje is merely the lower course of the Godjeb, as shown in his map. I have already expressed my regret (*Athen.* No. 1044, p. 1127) at not having, from the outset, placed more implicit reliance on the correctness of 'Omar's most valuable information.

I would rather say *the* Doqo than simply Doqo; because that name comprehends thirty independent States,—most of them using different languages.

“Doko” in the Galla language means “ignorant,” “stupid,” and is used much in the sense of our English word “savage.” M. d'Abbadie says in another place (*Bulletin*, vol. viii. p. 233,) that the *Dokos* “*give themselves this national name*.” He must have again forgotten himself when thus saying that thirty independent States, using different languages, give themselves *one* national name. His loss of memory is really lamentable.

The extensive tract of country to the west of the Baro is called Baqo, not Wallegga. I am assured that the Gallas beyond the Baro, and even those beyond the Baqo, speak all the same language.

Both in my text and in my map I have placed Wallegga to *the east*, and not to the west, of the Baro. Of the Gallas beyond that river, I merely said that they “speak a different language, or at least a different dialect.”

The origin of the Galla is not [at] all a *vexata questio* for me:—but as I am afraid that the Doctor’s learning might engage him to turn up authorities against me, and as I have no books here, I shall tell you my opinion of Galla origins another time. I may merely mention that if *gama* means *beyond*, beyond the Baro would be rendered in Ilmorma *Baro Gama*,—not *Bargama*.

A short paper by me “On the Origin of the Gallas” is printed in the Report, for 1847, of the British Association for the Advancement of Science—“Report of the Sections,” p. 113 *et seq.* In it I have referred to the opinion expressed by M. d’Abbadie on the subject, which is very far indeed from having solved the question. The words *Baro* and *gama* are contracted into *Bar’gama*, just in the same way as *Ilma* (son) and *Orma* (man) become *Ilm’orma*—“the son of a man,” *i. e.* a Galla. Why M. d’Abbadie should speak of the “*Ilm’orma*” language I am at a loss to understand. The Gallas themselves say *Afan-Orma*—“the language of men.” If we are to supersede the well-known word *Galla*, we ought to call the language *Orma* or *Orman*. To speak of it as “*Ilm’orma*” is about as absurd as if, in speaking of the languages of M. d’Abbadie’s native and “chosen” countries, we were to say the Irish-man-language and the French-man-language.

I received Dr. Beke’s paper through your kindness;—and thought myself obliged to state my opinion on the information which it imparts. What I have written I have written,—to use the words of the illustrious and unfortunate Bruce; but should any one show reason to doubt my opinions, I shall ever be ready to take up my pen and answer him. In days of yore, men supported their assertions with sword and blood,—the present generation prefers pen and ink: and I, with some others, prefer the taste of these degenerate days,—as the fiercest battle, and even the most destructive defeat, will not prevent me from quietly sitting down at your fireside to philosophize at leisure by laughing sometimes at my own folly and sometimes at the folly of others.

ANTOINE D’ABBADIE.

To Fred. Ayrtou, Esq.

M. d’Abbadie’s declaration at a meeting of the Geographical Society of France on May 3rd last (see *Bulletin*, vol. xiii. p. 333), that “he was ready to sustain a geographical discussion, fairly offered by *any one but M. Beke*,” and the subsequent mission, on July 4th, of his brother Arnauld and friend Mr. Ayrtou, to prevent me, if possible, by threats and insults, from laying before the public the facts connected with his pretended journey to Kaffa, are an unhappy commentary on the conclusion of his letter.

II.

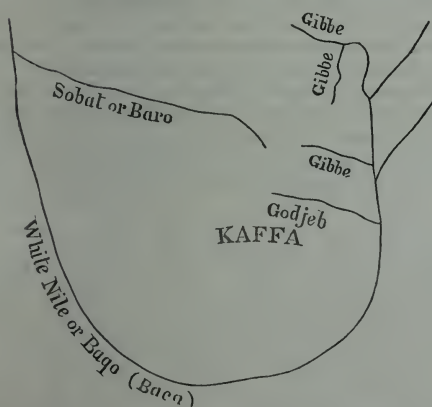
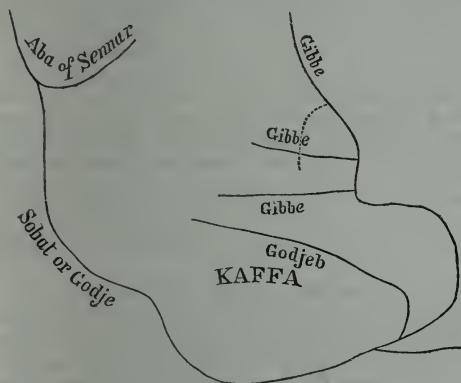
The following is extracted from a letter dated Gondar, February 17th, 1848, and addressed by M. d’Abbadie to the Editor of the *Athenæum*, in reply to my letter of October 25th, 1847, which had been inserted in that journal on the 30th of the same month, No. 1044, p. 1127. M. d’Abbadie’s letter was printed in the *Athenæum* of December 30th, 1848, No. 1105, pp. 1329-1331. I did not think proper to reply to it at the time; and much of it is still unnoticed, as being immaterial and irrelevant. The paragraphs are here, as before, answered *seriatim*.

Dr. Beke presents his informer ‘Omar in the character of a boaster when he says, “Where is the land that a child of Darita does not reach;” yet he affirms that ‘Omar’s

map is, "in its *most material features*, identical with mine,—constructed from actual survey with the theodolite." A writer who indulges in sarcasm might hold up this phrase as a specimen of Dr. Beke's judgment in all assertions of his, whether past or future. But I take these words for an oversight, merely attributable to the Doctor's eagerness; and will rest content with questioning the truth of his assertion,—first, because it is improbable,—secondly, because the Gibe of Inarya runs nearly east and west in Dr. Beke's map, while in mine it travels almost north and south,—and lastly, because, although Dr. Beke's map is now before me, he has not yet seen mine; the two sketches which I sent to Europe not containing many other details which would also prove anything but identity.

The two maps themselves will give the most suitable answer to remarks of this sort. Accordingly, a *fac-simile* of each, so far as regards the courses

of the rivers marked on them respectively, is here inserted. The upper one is that of 'Omar, which was sketched in February, 1843, by the simple process of placing the end of "his finger on the points marking the bearings of the places named, whereon I drew a circle round it, and set down the names mentioned within that circle." The lower one is that of M. d'Abbadie inserted in the *Athenæum*, No. 1042, p. 1077, which was constructed in 1847, with the aid of his theodolite, planted in 200 stations in Ethiopia, and other instruments with which he was so amply provided. It will, at a glance, be evident that the "most material features" in which these two maps are identical, and in which they differ from all preceding ones, are :—1st. The *three* rivers called Gibbe—all other maps shewing only *one*, whether under the name Zébee, Kibbe, or Gibbe. 2ndly. The junction of the three rivers Gibbe with the Godjeb, which is not at all indicated in previous maps. 3rdly. The spiral course of the united stream round Kaffa on its way to join the Nile, instead of falling into the Indian Ocean. I am quite ready to admit—indeed I never thought of denying—the slight difference alluded to by M. d'Abbadie with respect to the direction of the



indicated in previous maps. 3rdly. The spiral course of the united stream round Kaffa on its way to join the Nile, instead of falling into the Indian Ocean. I am quite ready to admit—indeed I never thought of denying—the slight difference alluded to by M. d'Abbadie with respect to the direction of the

middle Gibbe, which in 'Omar's map is from west to east, while in M. d'Abbadie's it is from south to north; but this little difference, which may be set right by means of the dotted line in 'Omar's map, is merely a matter of detail, and does not affect the justness or the good faith of my assertion, which only extended to "the most material features" of the two maps. As to M. d'Abbadie's last maps in vols. ix. and xii. of the *Bulletin*, though undoubtedly "containing many other details," they are substantially identical with the "two sketches" previously sent by him to Europe and inserted in No. 1042 of the *Athenæum*, of which the above is one.

If I had suspected that Dr. Beke and 'Omar Najat were united by the sacred tie of friendship, I would certainly have withheld my opinion of the latter even when writing to my own friend,—for private feelings are a sanctuary too holy to be trespassed upon. However, after having unluckily given my opinion, I do not mean to say that I swerve from it. I moreover deeply deplore that my peculiar position obliges me to inform Dr. Beke of a circumstance which he is most undoubtedly ignorant of, or he would never as a Christian, and still less as an Englishman, have called 'Omar a very honest fellow. 'Omar is, like the great majority of Darita merchants, a notorious slave dealer. I travelled in his caravan from Baso to Yfag,—had full opportunities of knowing him,—was much amused by his account of countries which he had never seen but which I had; and the only information I then reaped was from his thriving stock of children,—born free, but doomed henceforward to slavery. I may here add, that, owing to the peculiar difficulties of travelling among the Galla, I have often striven to contract at least a semblance of friendship with dealers in human flesh, but it would not do; for antipathy on my side and habits of falsehood on the other made the tie impossible. The trade in human flesh is like a moral simoom which blights every good feeling.

All that I said was—"My *poor friend* 'Omar, whom I looked on as a very honest fellow, is unmercifully accused of 'fibs' and 'yarns';" and upon these few words M. d'Abbadie gives vent to this gush of sentimentality respecting slavery. Even if all that M. d'Abbadie asserts respecting this merchant were true, (for which however his word can hardly be accepted as conclusive evidence,) it must be borne in mind that 'Omar is an Abessinian and a Mohammedan, and that by the customs of his native country, as well as by his religion, slavery and slave-dealing are deemed lawful. I cannot see, therefore, why he should not be, in other respects, "a very honest fellow,"—as I called him and still believe him to be. As to my being "united by the sacred tie of friendship" with 'Omar, because, in defending him from M. d'Abbadie's unfounded charge of falsehood, I spoke of him as "my poor friend," it is simply absurd; while M. d'Abbadie's assertion that he himself has "often striven to contract at least a semblance of friendship with dealers in human flesh, but it would not do," is something worse than an absurdity. For, what is his Galla guide, Rufo Garre (see *Athen.* No. 1041, p. 1056), whom he "kissed and blessed" on parting from him? What is the "brave and venerable" Shumi Abba Bia (*ibid.*), whom he "again embraced" in Gúderu, and who named him his bridesman on his marriage with the granddaughter of Abba Bógibo? And, above all, what is his "royal friend" Abba Bógibo, against whose atrocious wholesale slave-making and slave-dealing he himself (see page 42, *ante*) so explicitly bears witness? Nevertheless, when we perceive M. d'Abbadie glorying (*Athen.* No. 1041, p. 1057) in a system of deceit by which he "proceeded cautiously to [his] own ends,"—which system, in spite of all his attempts at concealment, must have been transparent to the cunning Abessinians,—it may easily be conceived that, in very many cases, "antipathy on one side" and "falsehood on the other" would indeed have "made the tie of friendship impossible" between them.

While on the subject of "dealers in human flesh," I may ask whether our

consistent traveller is the same "M. Antoine d'Abbadie" who, at a meeting of the Geographical Society of Paris on the 5th of April, 1839 (see *Bulletin*, 2nd Series, vol. xi. pp. 215, 253), presented to the assembly a "Galla boy whom he had purchased." If so, I would recommend to his serious consideration the Act of 5 Geo. IV. cap. 113, and also the following passage in a despatch addressed by Viscount Palmerston, in the early part of last year, to Mr. Consul Gilbert at Alexandria, with reference to cases of a similar nature occurring in Egypt:—"In accordance with the opinion of the law advisers of the Crown, I have now to state to you that Her Majesty's subjects who are offenders against British law in the manner described by you, are liable to be charged with felony under the 10th section of the Act above-mentioned, and, if convicted, to be transported or imprisoned as felons." (See the Eleventh Annual Report of the British and Foreign Anti-Slavery Society, 1850, p. 50.) It is only right that M. d'Abbadie should be aware of the law; as, though he has recently declared himself to be a Frenchman by choice," (see page 27, *ante*), still he cannot thereby free himself from his liabilities as a British subject.

I am at a loss to understand Dr. Beke's argument relating to the Zeebe crossed by A. Fernandez in 1613; and I still retain my opinion that one of these was the Kusaro, which could not be avoided in going from Inarya to the Janjaro without a devious and useless circuit round its source near Gera.

This subject has already been discussed in page 16, *ante*.

It is not strictly logical to deny *en passant* the premises of a man's reasoning and then build a lengthened argument on that very denial. In writing to Mr. Ayrton I briefly stated that Suro is *not* subject to Kaffa. Dr. Beke, forgetting his own rule that "to contradict is not to disprove," now repeats the contrary, and in my humble opinion ought to have begun by explaining why his informers should be preferred to mine. In Abyssinia I have often heard Darita Mussulmen say that the Suro are subject to Kaffa: but the four Bonga ambassadors to Inarya pointedly told me the contrary; as likewise the messenger from the King of Gobo, a Nao slave, born near the very desert which separates the Nao from the Suro,—a Xay [Shay] slave who had fought with the Suro,—a Doqo free man in the pay of the King of Kaffa,—a Bonga blacksmith who volunteered in the last foray, and complained of the desert between the Gimira (subjects of Kaffa) and the Suro,—and last, not least, Nalle, a native of the Suro country. That Dr. Beke should have been misled into believing the subjection of the Suro on the authority of two informers only, is a pretty illustration of the rule which I laid down in your No. 1041,—viz., that in African hearsay-geography three independent informers who agree together are often requisite to establish one truth. I could fill a whole page with miscellaneous information on the Suro; and have seen three slaves from that country who left their home when grown up, and are not disfigured as the Doctor relates. Besides, in these days of universal wandering, should any Englishman meet a Kaffa slave who remembers his own country, he may easily satisfy himself that the Kaffa and Suro are irreconcilable enemies, and inhabit adjacent hostile countries.

This is an amusing instance of that charming off-hand style for which the Irish of France and the Gascons of Britain (and I believe M. d'Abbadie comes within both categories,) are famous. I had originally stated (*Journ. Roy. Geogr. Soc.* vol. xiii. p. 264) that "Suro is subject to Kaffa," which M. d'Abbadie *unceremoniously contradicted* (see page 45, *ante*); and on my repeating my assertion and giving reasons for its correctness, he coolly turns round on me and says that "it is not strictly logical to deny *en passant* the premises of a man's reasoning and then build a lengthened argument on that very denial!" I am content to leave the argument just as it stands.

But, with regard to the *disfigurement* of the Suro negroes to which I alluded and the existence of which M. d'Abbadie so summarily denies, I will adduce some evidence from a trustworthy and totally independent

source, which not only tends to prove the general accuracy of 'Omar's information on this subject, but likewise to establish the correctness of my hypothesis that the Godjeb is the head of the Sobat or River of Habesh, and not of the direct stream of the Bahr el Abyad or Nile. My original statement was:—"Suro is two days' journey to the west of Bonga, and is subject to Kaffa. The country is both highland and valley, but the people are all *Sháunkalas* or negroes. The men go naked, and the women wear only a small apron. The king of the country alone is clothed. They are pagans. *They take out two of the lower front teeth, and cut a hole into the lower lip, into which they insert a wooden plug. They also pierce the gristle of the ear all round for the insertion of grass.*" And I described the country of the Suro, likewise on 'Omar's authority, as lying in the valley of the Godjeb. (See also his map in *Journ. Roy. Geogr. Soc.* vol. xvii. part 1.)

M. Ferdinand Werne, who accompanied the second Egyptian Expedition up the White River, has recently published an account of his voyage (*Expedition zur Entdeckung der Quellen des Weissen Nil*, Berlin, 1848), in various parts of which customs similar to those described by 'Omar are mentioned as prevailing among the black inhabitants of the valley of that river. The traveller states that, as far south as Bari, in the fourth parallel of north latitude, all the natives are in the habit of *extracting several of the incisors*, both of the upper and lower jaw, "in order that they may not resemble beasts of prey" (p. 188); and that they also "*pierce the cartilage of the ear all round*, and, in the absence of beads or other ornaments, they insert in the orifices small pieces of wood" (p. 428). The natives of Bari alone form an exception, being "distinguished" (says M. Werne) "from all the people we have hitherto seen by the circumstance that they do not pierce their ears for the insertion of ornaments, and also, that they are not tattooed" (p. 293); and *higher up the river than Bari*, which country was the extreme point reached by the Expedition, *the natives are said to "keep in all their teeth"* (p. 325).

From a comparison of these particulars the conclusion may fairly be drawn, that the Suro negroes are of the same race as the inhabitants of the valley of the White River *below Bari*, but not as those *above* that country; and as they occupy the valley of the Godjeb, which is now known to be an affluent of the Nile,—and as there is no important stream joining the White River from the east *below Bari*, except the Sobát, Telfi, or River of Habesh,—it results that this latter river can only be the lower course of the Godjeb.

I am as liable to oversights as many others, but Dr. Beke ought to have chosen a better case in order to prove my frailties. In speaking of a map sketched not in Gondar, but in Saka, comprising the country between Saka and Bonga, I had said, rather ambiguously it is true, that I wished to add to it places established by oral evidence. But even had my French phrase quoted by Dr. Beke meant that my hearsay information had been already penned down right and left, the words "*à droite et à gauche*" do not inevitably imply that I had extended my information to the left bank of the Omo, or recognised fully the existence and dimensions of all its affluents. And my expressions are certainly less definite than Dr. Beke's *whole of Central Africa*,—which, according to his last explanation, means only from the Equator southwards, that is, somewhere *out of the centre*.

As regards this gross evasion of the real question respecting the map, I have only to refer to what has been said in pages 13, 14, *ante*. And as to my "definite" expression, it was, first and last, "*the whole of Southern Africa*," (see *Journ. Roy. Geogr. Soc.* vol. xvii. p. 75.)—not "*the whole of Central Africa*," as M. d'Abbadie thinks proper to assert.

The French word *bourg* does not mean *town*, as the learned Doctor is pleased to

translate it,—but has a more indefinite meaning, like the English *borough*, which has been often applied to a few houses only: and I used *bourg* in the latter sense to avoid a lengthened explanation in a long letter. When the caravan is gone, most of the Saka huts are taken down; and on the arrival of a fresh one, huts are bought and carried sometimes from the distance of several miles. A “great emporium” means a thriving permanent city, or something of the kind,—and Saka deserves no such name. I insist the more on this point because recent travellers have spoken in glowing terms of the commerce of Ethiopia. The sources of that commerce being chiefly in the neighbourhood of Inarya, I may cite an example which proves what these African emporiums are. On my return from Bonga I passed three weeks with ‘Omar Badūri, a native of Harqiqo, who had arrived in Jēren (omitted in Dr. Beke’s map) with twenty loaded mules, worth in Gondar at most 1,000 dollars, or £216, and in Inarya 26,000 amole, or pieces of salt. Now, ‘Omar Badūri being very desirous of going home, gave higher prices than other merchants,—kept servants in the markets of Gombota and Saka to buy up civet, slaves, or ivory,—and was nevertheless obliged to consume *two* whole years before disposing of his goods because the markets are not stocked. Few European merchants would consent to such protracted delays.

The subject of Sakka and the meaning of the word *bourg* having already been discussed, (page 12, *ante*,) there is no need to dwell on those matters here. But M. d’Abbadie’s direct and positive contradiction of my assertion that Sakka is “the great emporium” of Enárea, requires a few words in reply.

Notwithstanding his many years’ residence in Eastern Africa, and in spite of his vast learning, M. d’Abbadie seems to be altogether ignorant of what “African emporia” are and always have been. We will take the description given by Captain Barker, I.N., of one of the greatest of these *emporium*—Berberah, a place which is very well known to M. d’Abbadie; for, when he finally left Aden, in November, 1840, he crossed over thither, and remained there some time before proceeding to Tadjurra, where he fell in with Major Harris’s Mission, as has been related in the *Athenæum* of February 17th, 1849, No. 1112, p. 167.

Of Berberah Captain Barker says, (*Journ. Roy. Geogr. Soc.* vol. xviii. p. 133,) that it is “the principal place of trade along the coast, on account of its beautiful harbour,” and that for the purposes of trade “the tribes from the interior commence arriving [there] from the end of October, and continue to do so until March.” It is to be hoped that even M. d’Abbadie will not assert that Berberah is “a thriving permanent city, or something of the kind;” but, lest he should do so, I will again appeal to Captain Barker’s testimony, which is, that at the end of March, “in a few days *the place, from containing a population of 10,000 or 15,000, becomes totally deserted.*” And yet Berberah, which during more than half the year is thus totally deserted, is, and has been from time immemorial, one of the principal *ἐμπορία* of the Eastern Horn of Africa—and this, whether it be regarded as representing the *Mundus*, the *Mosyllon*, or the *Malao* of Arrian’s *Periplus*.

Therefore, if even we acknowledge M. d’Abbadie’s *third* description of Sakka to be the authoritative one, and that place to be neither “the capital of Enárea,” nor a “borough town,” nor yet a simple “town (bourg),” nor even a “straggling hamlet or village,” but only a temporary collection of “huts bought and carried from a distance of several miles;”—in fact much such a place as that *great emporium* Berberah itself is;—still, as he admits that “the sources of the commerce of Ethiopia are chiefly in the neighbourhood of Enárea,” and as Sakka is universally (with not even the exception of M. d’Abbadie himself,) recognised as the principal market of that country, I do not fear being accused of incorrectness or exaggeration in styling it “the great emporium of Enárea.”

M. d’Abbadie has, however, since re-acknowledged Sakka to be “the

capital of Enúra" (see page 35, *ante*); so that his principal objection on the score of its not being a "thriving permanent" place, falls of itself to the ground.

Sacrifices are made at the source of the Bora as well as those of the Gojab; but but this proves nothing with the scientific geographer. As in the case of Bruce's Nile, native universal consent has long ere now been totally discarded. I have already explained in print how physical obstacles prevented me from visiting the source of the Gojab; and Dr. Beke's reproaches on that point are as misplaced as if I quarrelled with him for not going in person with the regular weekly caravans from Yajibe to Gudru (there are no caravans and even no travellers from Qanqatti to the source of the Gojab) to satisfy himself with his own eyes that the Lag 'Amara does not join the Agul, as his map will have it.

I am not conscious of M. d'Abbadie's having anywhere "explained in print how physical obstacles prevented him from visiting the source of the Godjeb," notwithstanding that I have looked pretty carefully through all he has published on the subject; nor can I indeed conceive what physical obstacles could have withstood his escort of 1000 warriors (see page 29, *ante*). But, whether he has explained this or not, his comparison of my not going to the Lagga (river) Amhara with his omitting to visit the source of the Godjeb is anything but just. I had no special reason for visiting the former river more than any other. I merely noted down its course from oral information, and may or may not have fallen into error with respect to it. But, according to M. d'Abbadie's own account, he went to Abessinia expressly for the purpose of visiting the source of the Nile in Kaffa; he believed the Godjeb to be the Nile; he was within thirty miles of its source;—and yet he did not go that trifling distance to visit it; though, according to *one* of his statements as to the reasons for his second journey, (see page 32, *ante*,) he afterwards returned upwards of 600 miles solely with the intention of doing so.

The *Athenæum* is my only unsevered link with English science. I have not seen in your columns a full detail of Dr. Beke's reasons for carrying the sources of the White Nile to the southward of the Equator; and must for the present decline examining the weight of his opinions,—observing only that if Dr. Beke argue with M. Werne, my information, given by natives, is in accordance with M. D'Arnaud,—and that when two European travellers have different views on one and the same important point, wise men will either suspend their judgment or decide by other and independent evidence.

To this appeal to "other and independent evidence" an answer most opportunely presented itself just as these sheets were going to press.

It will be remembered that in my "Essay on the Nile and its Tributaries," (*Journ. Roy. Geogr. Soc.* vol. xvii. p. 71,) it is contended that the direct stream of the Nile "has its origin in the country of Mono-Moézi;" which country is approximatively placed by me "within two degrees S. of the Equator," and between "the 29th and 34th meridians of E. longitude." And, as "in the languages extending over the whole of Southern Africa, and of which that of the country of Mono-Moézi itself is a principal dialect, the word *Moézi*, in various forms, means 'the moon;'" the opinion is expressed that the geographer Ptolemy, having been informed that "the source of the Nile is in the *Mountains*, or hill-country, of *MOEZI*," had "merely translated that expression into τὸ τῆς ΣΕΛΗ ΝΗΣ ὄρος, — *the mountwains of THE Moon*." (*Ibid.* p. 75.)

The discovery made by Mr. Rebmann, in April 1848, of the snowy mountain Kilimandjaro, has already been adverted to (page 3, *ante*). I have now the satisfaction of referring to the important discovery of the still larger *Küma dja Djeu*, or "mountain of whiteness," named Kénia, which was made by my friend Dr. Krapf, on a journey to Ukambáni, 400 miles

N.W. from the Missionary Station at Rabbai Mpia, near Mombas, performed in November and December, 1849, and of which an account is given in the *Church Missionary Intelligencer* of September 1850, vol. i. pp. 393, 394. In the map accompanying his journal, Kénia is placed by Dr. Krapf in about 1° S. lat. and 35° E. long.; it being, like Kili-mandjaro, on the road to the country of *Uniamési*, which “by interpretation may be rendered *Possession of the Moon*,” and on the northern flank of Kénia, in Dr. Krapf’s opinion, is “the most probable source of the Bahr el Abyad, in accordance with Ptolemy.”

This “mountain of whiteness,” Kénia, is described by Dr. Krapf as having “the form of a gigantic roof, over which two horns rise like two mighty pillars, which [he] has no doubt are seen by the inhabitants of the countries bordering on the northern latitudes of the equator;” and it, or some other similar mountain, is, manifestly, “the *white mountain*, whose peaks are completely white,” which, according to Baron von Müller (*Athen.* No. 1111, p. 142), is known to the natives of the valley of the Bahr el Abyad between 4° and 5° N. lat., and in which they state that river to have its origin.

I apprehend that but few links are now wanting to complete the chain of evidence in proof of the correctness of my hypothesis.

III.

FROM the preceding remarks of M. d’Abbadie (pages 37, 42, 44, *ante*,) it will have been observed in what emphatic terms he protested against my introduction of the letter *h* into the words *Dedhësa*, *Gəmhol*, &c. And, in like manner, in his letter of August, 1847, printed in No. 1042 of the *Athenæum*, (p. 1077,) he found fault with me for spelling the name of the river *Abai* with one *b* instead of two.

In my reply, inserted in No. 1044 of the same Journal, (p. 1127,) I contented myself with saying:—“Neither will I question here the judgement pronounced *ex cathedra* on my spelling of certain native names:—perhaps on some future occasion you will afford me space for a few remarks on this subject.” But, on further consideration, I really did not think it worth while to trouble either the Editor of the *Athenæum* or the public with trivialities of the sort.

M. d’Abbadie would have done well to allow the matter to remain thus. Instead of which, apparently regarding my silence as a sign of defeat, he followed up his fancied victory by a letter in the *Athenæum* of January 13th, 1849, No. 1107, p. 42, of which the following is the commencement:—

After waiting several months for Dr. Beke’s promised vindication of his orthography [see *Athen.* No. 1044, p. 1127], I shall trespass on your kindness to offer a few remarks on the same subject.

When affirming that there is no *h* in *Did-esa*, I said so merely on the assumption that *h* stands always for an aspirate. On receiving your No. 1044, I feared some mistake on my part; and brought three different Galla to three Abyssine writers, ordering them to write the name in their own characters. One wrote *Didësa* (ደደሳ) and the other two *Did-esa* (ደደሱ). All three agreed that there was no aspiration in the word. I may here mention that your printer, more scrupulous than many learned Societies, has long ere this cast an underdotted *d* to express the cerebral *d* known in India,—perhaps identical with the Welsh *ll*, and employed likewise in the Afar, Saho, Ilmorma, and Kafácco languages. My hyphen (-) stands for the Ethiopic *alef* (አ) or the Arabic *hamzah* (ه), which is often overlooked by Europeans, who may

take it for an *h* when their ear is not tutored to the peculiar sounds of foreign languages. These remarks may be of value, since the *Diḍ-esa* is probably the true *Bahr el Azraq*, or Blue Nile.

So, after all, the *tirades* against my use of this obnoxious *h* were merely founded on the gratuitous assumption that it “stands *always* for an aspirate!” Let us now see what it really does stand for.

In the month of April, 1845, I communicated to the Philological Society of London Vocabularies of thirteen languages, collected by me in Abessinia, being principally from the southern parts of that country, and including those of *Shínasha* (Gonga), *Kaffa*, *Woráttá*, *Woláítsa* or *Wolámo*, and *Yángaro* or *Djándjaro*, (which form a new class of languages first made known by myself,) and also the *Galla* of *Gúderu*. These Vocabularies, accompanied by some explanatory remarks, were printed in the second volume of the *Transactions* of that Society, pp. 89-107.

In those remarks, in describing the system of orthography adopted by me, I say:—“*Dh* is a sound peculiar to the *Galla* language, and extremely difficult to be acquired, the *d* being followed by a sort of *hiatus*, or guttural approaching to the Arabic ع.” And I further explain that the consonants not

specially mentioned by me, of which the simple *d* is one, are “to be pronounced as in English.” In accordance with these rules, I write *De-dhé-sa*, which gives the true pronunciation of the word, as I studiously acquired it from numerous *Gallas*, when in *Godjam* in 1842 and 1843.

The two distinct sounds contained in this word are represented by Dr. Tutschek, in his *Grammar of the Galla Language*, (p. 6.) by the characters *d* and *d'*, which are thus defined by him:—“*D* is our soft *d* in day, load, maid *d'* is a singular sound, scarcely to be expressed by European organs. It is very soft, and formed by a gentle push of the tongue upon the hinder part of the palate, so that between the *d'* and the following vowel, another consonant seems to be intercalated, similar to the Semitic *Ain* [ع]. It forms thus, to a certain degree, the bridge from the *T*—sounds to the gutturals; and before the ear is accustomed to this peculiar consonant, it is usually confounded with *g*.”

Thus it will be seen that Dr. Tutschek and myself entirely agree as to the pronunciation of this peculiar *Galla* sound, which we respectively represent by *dh* and *d'*; and it will likewise be seen that we both distinguish between this sound and that of the ordinary English *d*, which we each mark with the simple character. Not so M. d'Abbadie. In spite of all he says about his acute sensibility of hearing, that sense is actually so obtuse with him that he cannot distinguish between the two widely different sounds of *d* and *dh* in the word *Dedhésa*. For he uses “an under-dotted *d*” to represent them both; and then, forsooth, says that the same character “expresses the cerebral *d* known in India—perhaps identical with the Welsh *U*!”

However, “fearing some mistake on his part,” M. d'Abbadie appealed (as he says) to three Abessinian scribes, whom he got to write the word in their native characters.

All this parade of learned scrupulosity may possibly impose on such persons as may happen to know nothing of the matter—on the principle of *omne ignotum pro magnifico*. But those who are at all acquainted with the subject will be aware that, though the Abessinians certainly do possess a *Ṛ* in their alphabet,—which letter, as Mr. Isenberg tells us in his *Amharic Dictionary*, “is the same with our *d*,”—yet they have no character or combination of characters whatever approaching in the least to the sound of the *Galla dh* or *d'*.

These three scribes, then, did just as a like number of Frenchmen would have done, if required to write the English name *Thistlethwaite* with their native characters. They represented the unpronounceable word as nearly as they could—that is to say, *they did not represent it at all*; and their authority is, consequently, about equal to that of M. d'Abbadie himself.

As regards my use of an *h* in other places where M. d'Abbadie thinks proper to introduce a hyphen (-), I can only repeat what I have already said in the Remarks on my Vocabularies (p. 89), with reference generally to the characters employed by me:—"They are not intended to represent the *precise* native sounds, to which they are in many cases only approximations, near enough, however, for all practical purposes." From what precedes, it is manifest that M. d'Abbadie is not qualified to criticise the system of orthography which, after due consideration, I have thus adopted.

It remains yet to say a few words respecting the spelling of the name of the principal river in Abessinia, the *Abai*. The passage in M. d'Abbadie's letter of August, 1847 (*Athen*. No. 1042, p. 1077), above alluded to, is as follows:—

I hope it is your compositor, and not the learned Doctor, who writes *Abai* in place of *Abbay*. In your No. 918, I remarked that Abay (with one *b* only) means in Amharña, *non-conformist, refusing, liar*. *Abbay* means *fatherly* in the Gonga language. I therefore protest at your enlightened tribunal against all those who rob the *Abbay* of its second *b*.

And in the number of the *Athenæum* (918, p. 542,) to which M. d'Abbadie thus refers, it is stated, in a note on the word *Abbay*:—

This is the proper orthography. The learned men in Godjam expressly told me, that *Abbay is written with a double B*.

What "the learned men in Godjam" could have been thinking of when they "expressly told" M. d'Abbadie anything so entirely incorrect as this, I cannot imagine.

Every Ethiopic and Amharic scholar knows that the alphabets of those languages are syllabic, and that the vowel sounds, which are seven in number (exclusive of diphthongs), are not represented by separate characters, but simply modify the form of the consonant in which each is incorporated. Hence the reduplication of any consonant necessarily involves the expression also of the vowel contained in it. When, therefore, these "learned men in Godjam expressly told" their learned scholar "that *Abbay* is *written* with a double *b*," they meant of course that that letter, *with its accompanying vowel*, is to be *twice written*; and if, to the first of the two characters be given the shortest of all the seven vowels—namely *ē*—the word must necessarily be written *A-bē-ba-yi*, which would be pronounced not *Abbay* but *Abebaï*!

Had those "learned men" asserted that the *b* should be *sounded like a double letter*, in consequence of its being contracted from two identical letters (see Isenberg's *Amharic Grammar*, p. 17), there might have been some sense in what they said; but even in that case they could not have stated that it is "*written* with a double *b*." For, as a learned man who has never been in Godjam teaches us, though "in Hebrew letters so contracted receive a compensative Dagesh, and in the Arabic, a Teshdid," yet "*in the Abessinian language they have no mark for this gemination*." (Isenberg's *Amharic Grammar*, p. 18.)

I am afraid, therefore, that M. d'Abbadie's "learned men in Godjam" are of a piece with his "Abyssine writers," of whom mention has just been made,—who, on hearing the word *De-dhé-sa* pronounced by "three different Gallas," wrote that word with four Amharic characters, which, as read by myself and also by my worthy friend Dr. Krapf (to whom I

submitted them while preparing this sheet for the press), are to be pronounced *Dê-dê-yê-sa!*

The remainder of M. d'Abbadie's letter in No. 1107 of the *Athenæum* is not worth repeating. Still, the concluding portion of it is so truly characteristic of the writer, that I will venture to reproduce it, even at the risk of wearying my readers.

Before concluding, I wish to add a few words on *accent*. The able *savant* just mentioned [Mr. Lane] distinguishes one in Arabic,—and M. Fresnel, long his fellow-labourer in the same field, can appreciate none. *Non nobis licet tantas componere lites*, for the Arabs themselves probably have no word to express the English idea of *accent*. Without venturing to decide between these two learned friends, I would attempt an explanation by saying, that Englishmen hear an accent everywhere and Frenchmen nowhere, merely from national bias.

In Abyssinia at least we can appeal to the natives on this delicate question. It is perhaps agreed in Europe that the Giüz, or sacred language of Abyssinia, has a very marked accent; but it is not generally known that the native professors *teach* the proper accent with as much fastidiousness as many an Oxford tutor. When I saw Dr. Beke putting accents everywhere in Amharña names, I resolved to distrust my French ears and consult the Gondar professors. This was an easy task; as when the Gojam army approached in February last, noble dames and chiefs flocked to my brother's house, while mine was filled by students and tutors. These last all agreed that there is no accent in the Amharña language; and one of them having pronounced a word three times with an accent placed each time on a different syllable, was laughed at as an insufferable dissenter. The same persons, however, admitted unanimously an accent in Tigray and Ilmorma; and I find one in upwards of fifteen other Ethiopian languages which I have more or less studied.

However, with the exception of Amharña, where the question is well decided, it is perhaps premature to insist on such a nice distinction as accent; and in most foreign, especially barbarous, languages, I would omit it altogether as long as our systems of transcription are abandoned to individual, and in general random, methods. This is a growing and intolerable nuisance; and by laying it again before the eyes of your learned readers you may benefit science still more than the private wishes of yours, &c.

ANTOINE D'ABBADIE.

In the brief remarks that I shall make on these apparently erudite observations, I must, in the first place, explain that the language which is thus made by M. d'Abbadie the subject of the "delicate question" of accent, and which he styles the *Amharña*,—for the only purpose, as it would seem, of mystifying the unlearned,—is nothing more nor less than the well-known *Amharic*, of which we possess printed dictionaries and grammars, besides a version of the entire Scriptures, and several elementary works from the pen of that learned "Amharic" scholar, Mr. Isenberg. This explanation simplifies the matter vastly. The public now know, at all events, what M. d'Abbadie is talking about, and they can at once perceive that the subject is not so recondite as at first sight it might have appeared to be.

With respect to the existence of an accent in this Amharic language, however M. d'Abbadie may "distrust his French ears," I do not at all distrust my English organs. Still, as we are all liable to error, I will call in as umpire a *German*, namely Mr. Isenberg himself, who, in his *Grammar of the Amharic Language*, (p. 13,) actually lays down "some general rules for accentuation." If, then, as M. d'Abbadie contends, "the question is well decided," the decision is evidently not in *his* favour.

It will, of course, be understood that no *written* accent exists either in the Amharic, or in any other of the native languages of Abessinia and the neighbouring countries. But as, *in speaking*, an accent or emphasis does exist, I have considered that it would greatly facilitate the pronunciation by marking with an acute accent (') that syllable of a word, especially when it is of more than two syllables, on which the stress generally falls.

IV.

The thirteenth volume of the *Bulletin* of the Geographical Society of France, recently published, contains, at pages 384-391, an Article criticising a Paper of mine, "*On the Geographical Distribution of the Languages of Abessinia and the neighbouring Countries*," of which a German version is printed in Berghaus's *Physikalischer Atlas* (Geographisches Jahrbuch, i. pp. 7-14), and an English version in the *Edinburgh New Philosophical Journal* (vol. xlvii. pp. 265-279).*

As that critique has appeared under the sanction of the Central Committee of the Geographical Society, and as it contains many misstatements, I think it necessary to reply to it; since the cause of truth might suffer, if misrepresentations sent forth into the world under such an authority were to remain unnoticed.

With regard to the general objections raised in the critique against the classification of the languages of this portion of Africa adopted in my Paper, I must remark that the classification in question is not mine, but Dr. R. G. Latham's, upon a portion of whose Report to the British Association for the Advancement of Science (see *Report of the Association* for 1847, pp. 197-210) my Paper only professed to be a commentary; and that, so far from its being exclusively founded on any substratum of mine, it is the result of that eminent linguist's critical examination and comparison of all the materials extant relating to African philology. Consequently, the objections in the *Bulletin* on this head would not touch me, even if they were well founded.

In like manner it is not due to me, but to Dr. Latham, that M. d'Abbadie's alleged collections of languages are placed "in the second rank;" though it cannot be denied that they are properly so placed. As long as M. d'Abbadie gives merely a string of *names* of languages, instead of publishing vocabularies of the languages themselves, no man of science would be warranted in adopting those languages or any arbitrary classification of them which that traveller chooses to put forth.

With these preliminary observations, I now proceed to the particular consideration of the comments in the *Bulletin* on the several heads of my Paper.

As regards the languages of Nubia and Fátsohl (Fazoglo), the Reviewer remarks that they are "still too little known to allow of any presumption as to their classification." Dr. Latham is evidently of a different opinion, since he *has* classed them in his Report (pp. 197-203).

Concerning the Bishárye or Bidja (Beja) language, it is said—"we reject the name of Bischarys (called Bishárye in Dr. Beke's map), and adopt in preference the national name of Budja." But the fact is suppressed that the name "Bidja," which is given by Dr. Latham, *is likewise marked in my map!* And as to the designation "Bishárye," it is used by Salt and Burckhardt as well as by all other travellers who have written respecting the people to whom it belongs, and it stands in most maps containing the country inhabited by those people; so that something more is necessary to justify the *rejection* of it so summarily.

The Reviewer adds that he doubts much "whether the language of Sawákin ought to be placed in the Ethiopic class." But as, according to

* This Paper had been read before the Section of Ethnology of the British Association for the Advancement of Science, on the 14th August, 1848, and again before the Ethnological Society of London, on the 22nd November of the same year.

Dr. Latham, "the short Suákin vocabulary of the Bishárye is shown in the Mithridates to have affinities with *the Argubba*," and as the Reviewer himself states that "the languages of Amhára, *Argóbba*, Guráge, Gafat and Adhári"—which all belong to the Ethiopic class—"appear to be properly placed together;" I apprehend that I must be right in my surmise that the language of Suákin belongs to the same class.

What the Reviewer means, when he says, in speaking of Dr. Latham's 17th class, "we find here a medley of languages of which the affinities appear to us to be quite different," I am at a loss to comprehend. As regards the language of *Arkiko* (one of this class), he asserts that this "denomination is not even that of a language,"—he having however just before spoken of the "*language* (langue)" of *Arkiko*, and said that it is "closely allied to the written Ethiopic language." And he then goes on to say that "the languages of Tigray and *Arkiko* ought to be separated from those which follow,"—that is to say, from the *Amharic* and other cognate languages of the south-east of Abessinia, which are included with the former in Dr. Latham's 17th class. All philologists have however hitherto classed the Tigre and Amharic languages together, as daughters of the ancient Ethiopic; and, in particular, Mr. Isenberg, in his last published work (*Abessinien und die evangelische Mission*, vol. i. pp. 9, 10), in treating of the Amharic, thus expresses himself:—"Though a *dialect of the Ethiopic* and therefore of a Semitic character, still it possesses something more heterogeneous than its mother language or than the Tigre, with which it is cognate and which retains the greatest resemblance to the Ethiopic;" referring, in proof of his opinion, to the published works of the learned Job Ludolf and of himself. That the languages of Guráge and *Argóbba* belong to the "Ethiopic" class is asserted by Messrs. Isenberg and Krapf, and that the same is the case with those of Harrar (Adhári) and Gáfat appears from vocabularies collected by myself. (See *Transactions of the Philological Society of London*, vol. ii. p. 92.)

The Reviewer next asserts that "the Geez or Ethiopic language is still spoken in those countries." Mr. Isenberg says, on the contrary (*op. cit.* vol. i. p. 10), that "the Ethiopic has entirely ceased to be spoken (*wird gar nicht mehr gesprochen*), for how long a time is not known;" and I prefer believing him. Of course, this assertion of Mr. Isenberg is to be understood in its natural sense, in the same way as, in treating of the languages of the Italian peninsula, it would be correct to say that the *Latin* has ceased to be spoken there.

The next assertion made by the writer in the *Bulletin* is a most extraordinary one. In speaking of the Ethiopic language, he says:—"Dr. Beke has thought proper to *suppress* this language in his map;" when the fact is that not merely is the "Ethiopic" the generic name of Dr. Latham's 17th class which is adopted by me, but in my map this identical name actually stands in capital letters, extending across a tract of country from the 10th to the 16th degree of north latitude!

And lastly, as regards this class, the Reviewer asserts that "Dr. Beke confounds, under the common denomination of *caste*, the Zallan, Kamant, and Wacto, and says that they have separated themselves from the Ethiopic race." This, however, is not the fact. For I look on each people as forming a separate *caste*, which, never having belonged to the "Ethiopic" race, can never have separated from it; and, further, I do not confound them with one another, though it is probable that, as the remains of the primitive inhabitants of the country, they had a common origin. The Zaláns are described by Mr. Isenberg as having affinity with the Faláshas, an aboriginal Agau race, and as living quite apart from the rest of the inhabitants, "forming a separate class of people,"—that is to say a *caste*. (See his *Am-*

haric Dictionary, sub voce ZALAN.) The *pagan* Kamáunts, according to the same traveller, "have a language of their own;" and the Reviewer himself admits that "they are of a primitive race speaking a Huarasa dialect,"—which means that they speak a dialect of the language of Kwára; and since they are thus shown to differ from the Amháras in origin, religion and language, they also clearly form a separate *caste*. The Waitos—it is thus I wrote the name, and it is so printed in the English version of my Paper, though in the German version it is misprinted Wactos—do not merely distinguish themselves, as the Reviewer affirms, "from the rest of the Abessinians by their predilection for the flesh of the hippopotamus," but, according to Mr. Isenberg, they eat likewise the flesh of wild beasts and "*other animals held in abhorrence by the Abessinians*;" which fact alone is sufficient to lead to the presumption that they are not of the same race (*casta*).

With respect to Dr. Latham's *Galla* class, the only objection raised by the Reviewer is, that "no African language gives itself the name of Galla." Nevertheless, as the name "Galla" has been sanctioned by its universal adoption, both in Europe and in Abessinia, during three centuries, it would certainly not be worth while now to substitute for it the designation "Ilmorma" proposed by M. d'Abbadie, especially as this name is not that which the Gallas themselves give to their language, which they call *Afan-Orma*. (See page 46, *ante*.)

As our attention has thus been directed to the "Ilmorma" language, I will take this opportunity of noticing the alleged specimen of the written character of that language, which was sent to Paris from Berberah by M. Arnauld d'Abbadie in January 1841, in a document professing to be a letter from Abba Bógibo, King of Enárea, to Dédjach Goshu, the ruler of the Abessinian province of Godjam. A *fac-simile* of this curious document, published in the seventeenth volume (2nd series) of the *Bulletin*, with a translation of an alleged Arabic version of it at pp. 124-126 of the same volume, excited no little interest in the literary world. To repeated enquiries made respecting this "Ilmorma writing," M. d'Abbadie has never given a satisfactory reply. His last explanation—if such it can be called—is found in a letter printed in the *Athenæum* of April 12th, 1845 (No. 911, p. 360), in which he says:—"I forgot to mention that the letter sent to Dadjach Goshoo by Abba Bagibo, King of Inarya and Limmoo, is, and probably long will remain, a mystery. *The facts of the case are too long to be detailed at present.* The hope of elucidating this unknown character was one of the prominent objects of my voyage to Inarya and Kaffa. I am now satisfied that it is *neither Ilmorma writing nor a hoax of Abba Bagibo.*"

This, however, will hardly satisfy the learned world. The statement just cited was made in September 1844; and we are now at the end of 1850 without any further hint on a subject, which was then alleged to be of such importance as to give occasion to a special journey to Enárea and Kaffa—which journey, moreover, has since been ascribed to a totally different motive, the desire, namely, to discover the Source of the Nile. (See page 1, *ante*.) There is therefore reason for suspecting that this writing, though said not to be a hoax of Abba Bógibo, may, after all, be a hoax by somebody else; and M. d'Abbadie would do well to state, without further loss of time, "the facts of the case," which were "too long to be detailed" in 1844, in order to prove that this alleged, *but now repudiated*, "Ilmorma writing" is not a fabrication, such as the *Formosan* invented by the famous George Psalmanazar.

The next objection urged in the critique is that "the name Changalla [Shánkala] has in Africa no other signification than that of *negro*, and is

not sufficiently definite." But I said nearly the same, and protested, in like manner as M. Russegger had done before me, against the indiscriminate use of the term in question. Still, as according to the last-named traveller, there actually does exist in the valley of the Blue River a negro tribe called *Shangollo*, there does not appear to be any sufficient reason why this name should not be used with a restricted application to the negroes of Agaumider and the valley of the Blue River, as proposed by Dr. Latham.

My classing together of the *Dalla* and *Bárea* languages was only suggestive, and was occasioned by Dr. Latham's assertion that these two languages have affinities with one another, as well as by the fact that the *Dalla* are called by Salt "*Shánkalas* (*i. e. negroes*) of the *Tákkazie*," while *Bárea* would seem to be not the name of a people, but an appellative signifying "slave," that is to say *a negro*.

Having thus gone through the languages classed by Dr. Latham, I now come to M. d'Abbadie's list of *names* of languages, which were placed by that philologist "in the second rank" for the reason already stated. On this subject the writer in the *Bulletin* is pleased to say that my remarks "are some of them superfluous and the others rash." We shall soon see what foundation there is for such an assertion.

The critic's first remark is that it is "proper to retain the name *Afar*, rather than the exotic term *Adal* or *Dankali*." I did not however object to the name *Afar*, in itself. My task was simply to endeavour to identify M. d'Abbadie's languages, of which he had given the names alone, and thus to class them with the known languages of which we already possess published vocabularies; and with this view I explained that M. d'Abbadie's *Afar* "is no other than the *Adál* or *Dankáli* (plur. *Danákil*) of modern travellers in Abessinia;" referring to six authorities cited by Dr. Latham, by all of whom either the term "*Dankali*," "*Danákil*," or "*Adaiel*" is used.

The Reviewer next says, "we should be glad if *the language* of the *Çomal* [*Somális*] were as well-known as Dr. Beke affirms it to be." I affirmed, however, nothing of the sort. M. d'Abbadie had made use of the expression "*Szomaliod*," which was never employed by any one before him; and in order that this might not be imagined to be some new language, I remarked that it is nothing but that "*of the equally well-known Somanlis or Somális*." And I see no reason to modify this expression; since the *Somális*, as a people, are perfectly well-known to everyone who has visited the north-eastern coast of Africa, and their name is equally well-known to all who have occasion to consult the map of that quarter of the globe. If philologists will agree to adopt M. d'Abbadie's designations of *Szomaliod*, *Ilmorma*, *Saho*, *Afar*, *Hamtonga*, *Amharna*, *Huara*, and many others, in the place of the "well-known" names *Somali*, *Galla*, *Shoho*, *Dankali*, *Agau*, *Amharic*, *Kwara*, &c., I for my part promise not to raise any objection.

It is next asserted that I objected to the "*distinct classification*" of the language of *Tufte*. This is not correct. My objection was that "M. d'Abbadie had placed it *side by side with the Afar*, *Ilmorma*, &c., with the help of a list of only ten words;"—as, in fact, the critic himself begins by admitting!

He further says that "to this distinct classification [of the language of *Tufte*] the *only* objection raised by Dr. Beke is its geographical position, an objection which is far from possessing so great a value in ethnology as he attaches to it. *The same motive* induces him to class, but altogether erroneously, the *Tambáro* language with that of *Gonga*." This, again, is incorrect. I certainly did adduce the geographical position of those two languages as *one of the reasons* why I was "inclined to place them among

those of the Gongga class, by which they are geographically surrounded ;" but I gave the further reason that Dr. Krapf expressly states that the language of Kaffa, which is of the Gongga class, "is common to Gobo, *Tufte* and *Tambáro*;" and I adduced as an additional reason M. d'Abbadie's assertion in the *Athenæum* (No. 1042, p. 1077) that in the language of *Tambáro* the word *agancuta* signifies "moon," as in that of Kaffa the expression is *agane*, and in "Dawro, whether of Kullo, Gobo or Walaytza, it is *agina*;"* which, as all the latter languages are of the Gongga class, proves, so far at least as this word is concerned, the affinity of the *Tambáro* with that class.

In September 1844 (see *Athenæum*, No. 911, p. 360), M. d'Abbadie affirmed that the *Tambáro* language, of which his vocabulary was then "lamentably small," is a "member of the Amhára family." He now affirms that he has "collected more than *two thousand two hundred* words of this language, and that it "has nothing whatever to do with the Gongga," though it has just been shown, on his own authority, that as regards the word "*agancuta*" it certainly has "to do" with it. After the numerous proofs given in the preceding pages of the little dependence to be placed on his affirmations, however positively and unequivocally made, I do not hesitate to express doubts as to the truth of his present assertion that he has "collected more than two thousand two hundred words" of the *Tambáro* language, especially as his list of languages published in the *Journal Asiatique* (vol. xii. pp. 372, 373), which was sent from Aksum so recently as the 17th of November, 1847, when he was on the point of quitting Abessinia, does not contain a trace of any such collection; and it will be well for philologists to be on their guard against fictitious Abessinian vocabularies, similar to those of the *Ho*, *Bomba*, and *Salo* languages of M. Douville.

But to proceed with the critique in the *Bulletin*, which will now offer some glaring examples of direct contradictions to M. d'Abbadie's assertions on previous occasions. In the first place we are told:—"Dr. Beke is mistaken in applying the term *Dáwaro* to an African *country*, of which he is unable to determine the limits. Formerly, under the sole rule of the ancient kings of Aksum,† there was indeed a country named *Dáwaro*, which is mentioned by Ludolf; but at the present day this name appears to exist only under the form of *Dauro* or *Dauroa*, which designates a *language* spoken in three contiguous countries, namely Kullo and Gobo, both within the peninsula of Kaffa, and Walayza, which lies to the east of the two former, on the left bank of the Uma." If, however, we turn to a previous volume of the *Bulletin* (2nd series, vol. xix. p. 438), we shall there find it expressly stated by M. d'Abbadie (whose authority the Reviewer will not, I presume, venture to dispute,) that "the country named Warátta by the Gallas is called *Dawro* by the natives," and that "*Dawroua* signifies an *inhabitant of Dawro*!" The frontiers of this *country* of *Dawro* are further stated by M. d'Abbadie (*ibid.* p. 440) to be "eight days' journey from Bonga," the capital of Kaffa; so that its limits, in that direction at least, may be determined with sufficient accuracy.

It is next stated—"We do not believe Dr. Beke authorised to call the Se [Shay†] language a dialect of that of Kaffa, inasmuch as M. d'Abbadie says that he has collected several hundred words of it, and thence affirms it to be a *separate* language." But, on a former occasion (*Athenæum*, No. 911, p. 360), M. d'Abbadie made the following explicit assertion:—"A collec-

* M. d'Abbadie has more recently (*Bulletin*, vol. ix. p. 108) asserted that the "moon" is called "in Kafaco, *agane*; in Tambaro and Kambata, *agancu*; - - - in Dawro (Kullo, Gobo, &c.), *agina*; in Walayza, *zolinta*."

† I do not know of any period when such "sole rule" had existence.

‡ Just as Shoho is written *Saho*; Shiluk, *Siluk*; &c.

tion of 400 words induces me to place also *side by side with the Sidáma* [*i. e.* Kaffa] *the Shay language* spoken by the Gimira, Gamarou or Gamrou—that is to say *by the natives of Kaffa*, who, according to M. d’Abbadie (*Bulletin*, vol. xviii. p. 355,) call themselves by that name. I may ask, if a collection of 400 words was sufficient in 1844 to place the Shay language “side by side with the Sidáma” or Kaffa, how many hundred words are now requisite to constitute it “a separate language?” And I would further ask, how came it to pass that, while as far back as the year 1844 M. d’Abbadie possessed “a collection of *four* hundred words” of this Shay language, he had no more than *three* hundred when he wrote from Aksum in 1847? (See *Journal Asiatique*, vol. xii. p. 272.)

Yet another example:—It is now stated—“We are enabled to affirm that the Naa language (*Nao* with the article) *is quite distinct from the Se* [Xe, Xay, Shay] *language;*” but, on the occasion already alluded to (*Athenæum*, *ut supra*), it was equally affirmed by M. d’Abbadie that “the Nao language appears a *mere dialect of the Shay.*”

There is, however, no end of these direct contradictions of M. d’Abbadie, who really seems to have fancied that no one would take the trouble to compare his different assertions made at different times, and that consequently he might say with impunity whatever first came into his head.

In my Paper which forms the subject of the critique in question, I naturally expressed surprise that that traveller should have had a *Doko* in his service nearly two years, and yet should have obtained from him only *twenty-nine* words of what he called “the Doko language,” and described (*Bulletin*, vol. xix. p. 439) as being “allied to that of Warátta” or Dawro; though on a late occasion (see *Athenæum*, No. 1042, p. 1077, and page 45, *ante*) he asserted that “that name comprehends thirty independent States, most of them using different languages.” We are now told that “it was *the fear of being looked on as a negro* that prevented the Doko interpreter mentioned by M. d’Abbadie from giving him a vocabulary of his language.” But he *did* give him a vocabulary, nevertheless, though, like the Tãmbáro vocabulary of 1844, it was “lamentably small;” and M. d’Abbadie has now only to explain to which of the “thirty independent States, most of them using different languages,” these twenty-nine words of “the Doko language” belong. It is not quite one word a-piece!

As regards the island of Dénab, which I identified with M. d’Abbadie’s Yambo, the Reviewer states that “M. Thibaud informs us that this island is inhabited by the Siluk [Shiluk].” Even admitting this to be the case, it affords no sufficient reason why the name Yambo should not be given to the inhabitants of the island by the Gallas or other people occupying the high lands towards the east. It is the multiplicity of names attributed by different natives to one and the same place, that forms one of the greatest difficulties in African geography.

The critic’s concluding remark is that “Dr. Beke has supposed, somewhat inconsiderately in our opinion, that the Konfal are identical with the Gindjar, whose dialect is full of Arabic;” adding that he “cannot bring himself to imagine it possible for M. d’Abbadie to have confounded tribes so numerous as those of Gindjar with the paltry settlement (*chétive peuplade*) of the Konfals.” In reply to these observations, I will adduce the following statement made by M. d’Abbadie in the *Athenæum* (*ut supra*):—“As for the Konfal, who live between Kwara and the Awawa [*i. e.* the Aghaghá, or natives of Agaumider], I have no sample beyond the first ten numbers, *which are partly Giiz*; and the all but unknown *Konfal tribes* are the most

perfect medium between the straight-nosed Ethiopian and the grovelling Negro;" with the remark that it would be strange indeed if these "Konfal tribes", who have now strangely dwindled down into "*la chétive peuplade des Konfal*", should use the Geez or Ethiopic numerals; and I must therefore retain my opinion that their numerals are *Arabic*, like those of the "Gindjar tribes," with whom, from the locality and the physical character attributed to them by M. d'Abbadie, I believe them to be identical.

Having thus commented on the critique in the *Bulletin*, I will only add that it bears strong internal evidence of having come from M. d'Abbadie himself, by whom it was doubtless dictated if not actually written. The Article has however gone forth to the public under the sanction of the Central Committee of the Geographical Society of France; and such being the case, I cannot but express my regret that, as the representatives of a scientific body, they should, by so many oversights and misrepresentations, have made themselves parties in a controversy of which they might properly have been the arbiters.

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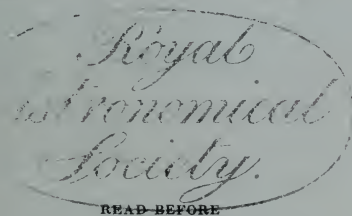
*Royal Astronomical Society -
from the author*
A SUMMARY

OF

RECENT NILOTIC DISCOVERY.

BY

CHARLES T. BEKE, PH.D., F.S.A. ETC.



THE SECTION OF GEOGRAPHY AND ETHNOLOGY

OF

THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,

AT THE MEETING AT IPSWICH ON THE 4TH OF JULY 1851.

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A SUMMARY
OF
RECENT NILOTIC DISCOVERY.

AT the Meeting of the British Association at Southampton, in September 1846, I had the honour of explaining to the Section of Geology and Physical Geography my views respecting the physical configuration of the Table-land of Abessinia*; and at the Meeting at Swansea, in August 1848, I enunciated before the same Section my hypothesis as to the sources of the Nile in the Mountains of the Moon†. I may be allowed here briefly to recapitulate the main results of those two communications.

The table-land of Eastern Africa, instead of consisting, as was generally supposed, of a succession of terraces rising one above the other, the lowest being towards the Red Sea and the highest in Enárea, is an elevated region of irregular surface, having its line of greatest elevation towards the sea-coast, whence the general level gradually falls westward towards the valley of the Nile; the water-parting between the streams tributary to that great river and those flowing towards the Red Sea and the Indian Ocean, being along the extreme eastern limit of the table-land.

The eastern flank of this table-land is abrupt and precipitous, the greater portion of the ascent to the height of 8000 or 9000 feet (the average elevation of its eastern edge) being within the horizontal distance of a very few miles; so that persons approaching it from the coast can only regard it as a lofty range

* See Report of the British Association for 1846, Report of the Sections, pp. 70-72; and Journal of the Royal Geographical Society, vol. xvii. p. 76 *et seq.*

† See Report of the British Association for 1848, Report of the Sections, pp. 63, 64; and Edinb. New Phil. Journ., vol. xlv. p. 221 *et seq.*

of mountains running along the eastern side of Africa from north to south.

To the southward of about the 2nd parallel of south latitude, and between the 29th and 34th meridians of east longitude, is the country of Mono-Moézi or Uniamézi—names which may be respectively interpreted “the king of the moon” and “the possession of the moon;”—and in this country, which forms a portion of the table-land, various considerations induced me to place the sources of the Bahr-el-Abyad or White River, the direct stream of the Nile. And I expressed the opinion that the “Mountains of the Moon” of the geographer Ptolemy, in which he places the sources of the Nile, consist of the mountain range of Eastern Africa, which flanks the country of Mono-Moézi to the east, instead of being, as we see them usually marked in the maps, a range stretching across the continent from east to west.

The direct stream of the Nile, which I thus conceive to have its sources in the mountains of Mono-Moézi, was in 1840 and 1841 ascended beyond the 5th parallel of north latitude by the second of the expeditions sent by Mohammed Ali, Pasha of Egypt, to explore its course, and was found to be joined in about $9^{\circ} 20'$ N. lat. by two principal arms, viz. the Keïlak or Bahr-el-Ghazal, and the Sobat, Telfi, or River of Habesh. The former, which joins the main stream from the west, and of which the course is yet unexplored, is apparently the Nile of Herodotus and other writers anterior to Ptolemy. The latter, namely the Sobat, which falls into the Nile from the east, is the lower course of the Godjeb, the principal river of Kaffa, which in its upper course is joined by three other streams, bearing in common the name of Gibbe, and draining the extensive elevated districts in the south of Abessinia Proper now occupied by numerous and powerful Galla tribes. Further, the Bahr-el-Abyad or true Nile, and the Sobat or Godjeb, appear to be the two principal arms of the Nile described by Ptolemy as having their sources in the Mountains of the Moon, or the Alpine regions of Eastern Africa; while the Bahr-el-Azrek, Blue River or Abai, and the Atbara or Takkazie, which both rise in the more northerly extension of the same elevated regions, are respectively the Astapus and the Astaboras of the same geographer.

The foregoing is a brief summary of my views respecting the orography and hydrography of Eastern Africa, from the 18th degree of north latitude to probably the 3rd or 4th parallel south of the Equator, as submitted to the British Association down to the year 1848. I now propose to take a rapid survey of the principal additions since made to our knowledge on the subject.

At the date of my last communication, it was not known in Europe that the members of the Church Mission in Eastern Africa, stationed at Rabbai 'Mpia, near Mombas, in about 4° south

latitude, had already begun exploring the interior of the continent. In the month of October 1847, Mr. Rebmann penetrated westwards to Teita, "a country whose mountains rise to such a height out of the vast surrounding plains, that on some eminences near Rabbai 'Mpia they are to be seen at a distance of 90 miles;" and in the April following (1848), the same missionary performed a journey further into the interior, to the still more elevated country of Djagga, where, at a distance of rather more than 200 geographical miles from the coast, in a direction about W.N.W. from Mombas, he made the remarkable discovery of a lofty mountain, named Kilimandjáro, of which the summit is covered with perpetual snow. The existence of snow on Kilimandjáro has been disputed in Europe, though it is difficult to say on what reasonable ground. However, on subsequent journeys, both Mr. Rebmann and his colleague Dr. Krapf have satisfied themselves of the fact; and unless it be intended absolutely to impugn their veracity, their evidence cannot be rejected.

In Djagga Mr. Rebmann obtained information respecting the country of Uniamézi—or Mono-Moézi, as it is designated by the early Portuguese, by whom it was first mentioned—situated considerably further inland; and towards the end of the year 1848 the same missionary returned to Djagga, for the purpose of ascertaining the practicability of reaching Uniamézi. Having been assured by the king of the former country of his readiness to assist him on the journey, he returned to the coast, whence, on the 5th of April 1849, he again set out on his way into the interior; his intention being to proceed, if possible, as far as the large lake in Uniamézi, respecting which also he had obtained information in Djagga, and which, from the name of Usámbiro attributed to it, appears to be the Lake Zambre of the early Portuguese maps; and when there he purposed making inquiries as to the road beyond the lake to the west coast of Africa. On this journey, however, Mr. Rebmann was unable to proceed beyond Djagga; the king of that country, Mamkinga, having "by tormenting beggary taken all his things from him, and leaving him at last no means whereby to travel any further."

Dr. Krapf had in the interval been occupied in exploring the districts to the south-west of Mombas, nearer the coast; but after the unsuccessful issue of Mr. Rebmann's last expedition, he himself determined on undertaking the difficult and perilous journey to Ukambáni, a country situated northwards of Djagga. This undertaking was successfully accomplished in the months of November and December 1849. The distance performed by Dr. Krapf, as measured on the map published in the Church Missionary Intelligencer for September 1850, is in a direct line 240 geographical miles north-west from Mombas. Towards the extreme point of his journey Dr. Krapf crossed the river Adi,

supposed by him to be the upper course of the Sabaki, which falls into the Indian Ocean close to Melinda. The absolute height of the bed of the river where thus crossed is not given; but it must be considerable, inasmuch as the river thence runs upwards of 200 geographical miles through a mountainous country before reaching the ocean. From the valley of the Adi Dr. Krapf ascended about 1800 feet to "the plain of Yata," on reaching which he says, "We had a majestic view of the whole region around. We viewed the serpentine course of the Adi towards the west and north-west; we saw the hills and plains of the wild Wakuāfi; we noticed the mountains Noka, Djulu, Engolia, Théuka, in whose vicinity lay the road we had taken to Kikúmbūliu. Eastward we saw the mountains of Mudumóni, which separate the Galla country from Ukambáni. To the north, Ukambáni Proper lay before our view. Had I been a mere traveller pursuing only geographical objects, I would, *standing on the plain of Yata*, have considered myself amply compensated for the troubles I had sustained on the road; for a great many geographical problems were solved in an instant on the height of Yata*." From this it is evident that Dr. Krapf must have attained an elevation of several thousand feet, even if he had not already reached the summit level of the table-land of Eastern Africa.

Of the geographical results of this journey, one of the most important is the discovery of another snowy mountain, named Kénia, of larger size, if not of greater elevation than Kilimandjáro. Kénia is thus described by Dr. Krapf:—"The sky being clear, I got a full sight of the snow mountain. . . . It appeared to be like a gigantic wall, on whose summit I observed two immense towers, or horns as you may call them. These horns or towers, which are at a short distance from each other, give the mountain a grand and majestic appearance, which raised in my mind overwhelming feelings. Kilimandjáro in Djagga has a dome-like summit; but Kénia has the form of a gigantic roof, over which its two horns rise like two mighty pillars, which I have no doubt are seen by the inhabitants of the countries bordering on the northern latitudes of the Equator. Still less do I doubt that the volume of water which Kénia issues to the north runs towards the basin of the White Nile†."

Though this conclusion of the worthy missionary is only conjectural, it appears to be founded on substantial reasons; and it can scarcely be doubted, that, through the discoveries thus made, we may arrive at a close approximation to the southern limits of the basin of the Nile. In Mr. Rebmann's map, already adverted to, Kénia is placed in 1° S. lat. and 35° 10' E.

* Church Missionary Intelligencer, vol. i. p. 417.

† Ibid. p. 470.

long., at a distance of 320 geographical miles N. 55° W. from Mombas; while the northern limit of the great lake in Uniamézi is, in the same map, laid down conjecturally in about $1^{\circ} 20'$ S. lat. and 29° E. long., at a distance of 650 geographical miles N. 75° W. from Mombas; and beyond these two points we can scarcely look for the continuation of the river, unless indeed it should actually be found to flow out of the lake itself.

It is proper to remark here, that, according to Dr. Krapf's explicit declaration*, this lake in Uniamézi is not identical with Nyassi,—or Niassa, as Dr. Krapf spells the name,—the great lake, respecting which some years back Mr. Cooley made an elaborate communication to the Royal Geographical Society of London, which is printed in the fifteenth volume of the Society's Journal. It should be added, that, when in Ukambáni, Dr. Krapf heard of the existence of a volcano in actual activity, at some distance beyond Kénia to the north-west, but he did not go far enough to see it. According to my hypothesis as to the physical character of the "Mountains of the Moon," they may in the most general manner be likened to the Andes of South America; and these particular coincidences of snowy peaks and active volcanoes serve further to complete the resemblance †.

Turning now to the exploration of the upper stream of the Nile itself, we may proceed to see how far these conjectural opinions with respect to the position of its sources are borne out by facts.

At the period when my opinions on the subject were placed on record, the course of the river was known only as far as $4^{\circ} 42' 42''$ N. lat., that being the extreme point reached in January 1841 by the second Egyptian expedition‡. In this expedition M. d'Arnaud and M. Werne took part, and the particulars furnished by those two travellers, from native information, respecting the river above the point attained by them, differed materially; the former stating that it came from the east, while the latter asserted that it continued a month's journey further south.

It is only recently that the question has been decided by Dr. Ignatius Knoblecher, the Pope's Vicar-General in Central Africa, who in January 1850, accompanied by two missionaries, Don Angelo Vinco and Don Emanuel Pedemonte, having surmounted the rapids which had stopped MM. d'Arnaud and

* Church Missionary Intelligencer, vol. i. p. 128.

† See Athenæum of December 1st, 1849, No. 1153, p. 1209.

‡ It is quite a mistake to suppose that the first expedition penetrated up the river as far as $3^{\circ} 30'$ N. lat. The extreme point reached by it on the 27th of January 1840 was $6^{\circ} 35'$ N., which point was passed by the second expedition, as is expressly stated by M. Werne in his *Expedition zur Entdeckung der Quellen des Weissen Nil*, p. 9.

Werne, penetrated up the stream of the Bahr-el-Abyad as far as $4^{\circ} 9'$ N. lat. Here, on ascending a mountain called Logwek, he saw the Nile trending away in a south-westerly direction till it vanished between two mountains named Rego and Kidi; and he was informed there by the Bari negroes, the last natives he met with, that beyond those mountains the river comes *straight from the south*. From the summit of Logwek Dr. Knobelecher observed, in the extreme distance of the southern horizon, a lofty mountain-chain, the outlines of which were barely discernible through the haze of the atmosphere, and which, from its distance, must be considered as lying nearly in the third parallel of north latitude.

According to Dr. Knobelecher, the Nile as far as the fourth parallel of north latitude continues to be a considerable stream, of the average breadth of 200 mètres, with a depth of from 2 to 3 mètres; which proves, beyond all question, that the river must come from a considerable distance, and most probably from beyond the Equator, in order to allow of the collection of a volume of water sufficient to form so large a stream. Dr. Knobelecher was confirmed in the opinion that the source of the Nile is to the south of the Equator, "by the fact that the river was rising on the 16th of January, which he considered as a consequence of the rainy season having set in in districts much further south*."

The longitude of the river at the extreme point reached by M. d'Arnaud in 1841, is, according to him, $31^{\circ} 38'$ east of Greenwich. If, now, Dr. Knobelecher's "furthest" in $4^{\circ} 9'$ N. lat. be conjecturally placed in the same longitude of $31^{\circ} 38'$ E.—which cannot be very far from the truth,—we shall have a distance between that point and Kénia of 370 geographical miles, on a bearing of S. 33° E.; while from the same point to the northern extremity of the lake in Uniamézi the distance is 360 geographical miles, on a bearing of S. 25° W. Within these limits therefore we may reasonably look for the southern boundary of the basin of the Nile; and it is not at all unlikely that Kénia itself is the "high mountain, the top of which is quite white," of which Baron von Müller, a recent traveller in Sennár, heard from the report of a native of the country of Bari, who was said to have travelled a great way to the south, and to have there seen the origin of the Bahr-el-Abyad in "the White Mountain" in question†.

In the present state of our knowledge on the subject, it would, of course, be wrong to pretend to establish any absolute identification. It is most probable that in the Alpine region of which

* See Athenæum of February 22nd and March 29th, 1851, Nos. 1217, 1222, pp. 217, 353.

† See Journal of the Royal Geographical Society, vol. xx. p. 287.

Kilimandjaro and Kénia form parts, other snowy peaks of at least equal altitude will be discovered. And even if it should be ascertained that one of the head-streams of the Nile has its origin on the northern flank of Kénia (as Dr. Krapf conjectures), we may be satisfied that others of those head-streams take their rise in other mountains further to the west. At all events, having reached this Alpine region, we have every reason to conclude that we shall here find the southern limits of the basin of the Nile; and we shall consequently have arrived at the solution, in general accordance with the statements of Ptolemy as now elucidated and explained, of the greatest problem of geography—the discovery of the mysterious sources of the giant stream of the African continent, the largest river of the Old World, perhaps even of the entire globe. One important consideration must however be constantly borne in mind, namely, that it is not by arbitrarily fixing on this or that particular head-stream that the question will be finally set at rest. As I have already observed in a communication made to the Syro-Egyptian Society of London on the 9th of January 1849*, “our object must be in the first place to determine the entire limits of the basin of the river; we have next to ascertain what principal arms unite to form the main stream; we must then trace to their heads the several smaller branches which form those arms; and when we have succeeded in all these points, we shall then—but not before—be competent to decide which of these numerous ramifications has the fairest claim to be regarded as the true Source of the Nile.”

London, May 5th, 1851.

Appendix to the foregoing Paper.

The rise of the Nile in $4^{\circ} 9'$ N. lat., observed by Dr. Knoblecher on January 16th, 1850, cannot have been caused by the setting in of the regular rainy season, either north or south of the Equator.

It is well known that on the Abessinian plateau, north of the ninth parallel of north latitude, the rains begin about the middle of June and last till the middle of September:—“cominciando il verno generale nell’ Ethiopia alla metà di Giugno fino a mezzo Settembre,” as was recorded by Alvarez† three centuries ago.

Within five degrees north of the Line the rains set in nearly three months earlier than in Abessinia. M. Werne, who was in the country of Bari, in about $4^{\circ} 40'$ N. lat., at the end of Janu-

* “On the Sources of the Nile, being an attempt to assign the limits of the Basin of that River,” printed in the *Philosophical Magazine* for August 1849, vol. xxxv. p. 98 *et seq.*

† Viaggio, &c. cap. 159.

ary 1841, was informed there that "the rainy season would not commence for two months, that is to say, not till the end of March or beginning of April*."

Crossing the Line, we learn from the experience of Dr. Krapf and Mr. Rebmann, that in the mountainous regions west of Mombas, within four degrees south of the Equator, the rainy season sets in towards the end of March or the beginning of April†,—that is to say, at the same time precisely as it commences within the like distance north of the Line; and it continues till the end of June or the beginning of July‡. And seeing that the commencement of the rains is the same within five degrees north as it is within five degrees south of the Line, it may reasonably be inferred, in the absence of direct evidence on the subject, that their duration is likewise in both cases the same; whence it will result that throughout the equatorial regions the regular rainy season lasts, as in Abessinia, about three months, only it takes place there at a period nearly three months in advance of the time of its occurrence in the latter country.

But, in addition to the regular rains, there is generally within the tropics a second rainy season. In Abessinia the two are distinguished by the names of "the rain of covenant" and "the rain of bounty;" the former being fixed and constant in its commencement and duration, while the latter is more uncertain and irregular. The ordinary occurrence of "the rain of bounty" in the southern portion of that country is during the entire month of February, or thereabouts.

We have not any direct evidence as to the period of this second rainy season within five degrees north of the Equator. But within the same distance south, according to Dr. Krapf and Mr. Rebmann§, it commences towards the end of November,— "in the middle of the dry season||,"—and continues through the month of December; and, by analogy, the same is most probably the case to the north of the Line likewise.

Taking all these circumstances into consideration, it would seem to result that the increase of the Nile, observed by Dr. Knoblecher on the 16th of January 1850 in 4° 9' N. lat., could only have been caused by "the latter rain" in the equatorial regions of Eastern Africa, whether north or south of the Line. And if, as it is reasonable to suppose, the commencement, amount,

* *Expedition zur Entdeckung der Quellen des Weissen Nil*, pp. 326, 333.

† Church Missionary Intelligencer, vol. i. pp. 21, 107, 329, 377, &c.

‡ Ibid. pp. 329, 376, 379, &c.; Church Missionary Record, 1847, p. 3.

§ Church Missionary Intelligencer, vol. i. pp. 416, 417, 454, 469-471, 474, &c.

|| Ibid. pp. 151, 273.

and duration of this "rain of bounty" are, like as on the Abessinian plateau, irregular and uncertain, we may fairly infer that it has at times no sensible effect on the volume of water in the Nile. Hence we may understand how it happened that in the year 1841 the river, so far from rising in the middle of January, as it did in 1850, continued falling till the end of that month*.

In Lower Egypt, precisely at the period of the regular equatorial rains, namely, "during the months of April, May and June, the waters of the Nile are at their lowest level. Towards the end of June the river at Cairo begins to rise, without the occurrence there of any rainy season, and without the existence of the slightest apparent cause. The increase of the Nile usually continues three months, from the summer solstice to the autumnal equinox, when its waters again begin gradually to fall†."

I refrain from discussing here the effect of the flooding of the various head-streams of the Nile on the inundation of that river in Egypt; merely remarking that its occasional abnormal and momentary increase appears to be solely attributable to the fall of rain in the eastern mountains of Egypt and Nubia: for instance, the extraordinary rise of the river observed at Cairo in May 1843 was caused by the rain-waters collected and brought down by Wady Ollaky in about 23° N. lat.‡

August 19th, 1851.

* Werne, pp. 330, 334.

† Ehrenberg, in *Monatsberichte d. Akad. d. Wissensch. in Berlin* (May) 1851, p. 334.

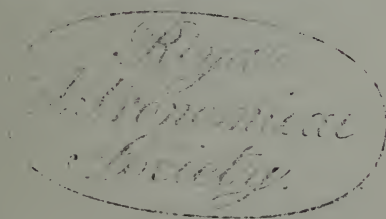
‡ Journ. Roy. Geogr. Soc. vol. xx. p. 292; and see Burekhardt's Travels in Nubia, p. 10.

*The Royal Astronomical Society
Own the Author*

ON
THE ALLUVIA
OF
BABYLONIA AND CHALDÆA.

By
CHARLES T. BEKE, PH.D., F.S.A.

AUTHOR OF ORIGINES BIBLICÆ.



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On the Alluvia of Babylonia and Chaldæa.

By CHARLES T. BEKE, *Ph.D., F.S.A.*

To the Editors of the Philosophical Magazine and Journal.

GENTLEMEN,

IT is now two years since I last addressed you on the advance of the land at the head of the Persian Gulf*. I am now induced to revert to the subject by the recent publication of Mr. Ainsworth's "Researches in Assyria, Babylonia, and Chaldæa," (London, 1838,) in which work are given the geological results of the Euphrates Expedition under the able conduct of Colonel Chesney.

Without going into the details of Mr. Ainsworth's investigations, it is sufficient to say that he determines "so far, the outline of the sea of Oman, or Gulf of Persia, at the earliest times of authentic history, [*i. e.*, as appears from the context, at the time of Nearchus's voyage,] as to trace it from the territory of Ghoreïn, by Jebel Sinám or Teredon, Zobeïr, Spasinus Charax, and the Vallum Pasini, in an undefined line across Dorákstán or Ká'bán, to the Arosis or Indíyán†;" and he also finds "evidence of the former existence of a lake, formed by the junction of the Tigris and the Choaspes or Eulæus, and extending from the neighbourhood of Diridotis to that of Agínis (Hawáz), and bounded to the north by the territory of Ampé, Aphlé, and Apamea, and to the south by that of Mesene and Charax‡." His conclusion as to the advance of the land in this locality generally, is, that it may be calculated at about 30 yards *per annum*; which gives about 35 miles of increase since the time of Nearchus, and about double that quantity, or 70 miles, for the entire advance since the earliest post-diluvian periods§.

Hence it follows, as Mr. Ainsworth himself states||, that Nearchus's fleet "must have taken a diagonal or north-west course *across the country* which now forms part of Dorákstán and Mahersí:"—a conclusion in direct opposition to the opinion entertained by Dr. Vincent, that "the pilot on board Nearchus's ship steered exactly the same course as McCluer's

* See Lond. and Edinb. Phil. Mag. for July, 1837; vol. xi. p. 66.

† pp. 193, 194.

‡ *Ibid.*

§ See p. 194.

|| p. 187.

Karack pilot 2000 years afterwards*;" and a sufficient confirmation of the correctness of the former of the two propositions advanced by me in my dispute with Mr. Carter, namely, "that, within the period of history, an advance of the land upon the sea has taken place of sufficient importance to affect materially the geography of the localities in question†,"—"and such, therefore, as to render the descriptions of ancient writers inapplicable to the present state of the country‡."

The other of my propositions was, "that, within the same period of history, the advance of the land upon the sea has been so great as (independently of all other arguments,) to warrant my conclusion with respect to the non-identity of the Babylon of Nebuchadnezzar and the Babel of Genesis§." On this point Mr. Ainsworth differs entirely from me; inasmuch as he makes the total advance of the land since the Flood to be only about 70 miles, whereas according to my hypothesis it must have been *at least four times as much*.

With all due deference to the opinions expressed by Mr. Ainsworth, and with a full consciousness of the great advantages which he has derived from an actual acquaintance with the localities in question, I will here merely raise one principal objection to the conclusion come to by him as to the advance of the land since the Noachian deluge being no more than 70 miles,—from the circumstance that one of the main grounds for his thus restricting it is the *assumption*, in the very outset of his arguments||, that the site of Babylon is actually identical with that of the Tower of Babel; an assumption which leads him into difficulties not easily to be surmounted. I will briefly explain how this is.

Mr. Ainsworth states, as the result of his observations, that "the last of the *deposits by transport* that is met with in that portion of the basin of the Euphrates which presents a rocky soil," is "at a very short distance to the south of Hit¶," and that "the limits of the *alluvia* are met with to the north in low hills and undulating land of tertiary rock formations, which advance to the banks of Euphrates at Mesjíd Sandabíyah, cross the river about eight miles above Felújah or Anbár, and at the Pylæ of Xenophon rise in low hills above the plain of Babylonia, and towards Tigris are lost in the plains traversed by the Median wall**." This is, in fact, giving the tract of country *actually* formed by the alluvial

* Commerce and Navigation of the Ancients in the Indian Ocean, vol. i. p. 466; and see Lond. and Edinb. Phil. Mag., vol. v. p. 248.

† L. & E. Phil. Mag., vol. viii. p. 506.

‡ *Ibid.* vol. ix. p. 42.

§ *Ibid.*, vol. viii. p. 506.

|| p. 104. ¶ pp. 103, 104.

** pp. 112, 113.

deposits of the river almost the very same extent northward (*i. e.* above 70 miles to the northward of the ruins of Babylon,) as is *conjecturally* laid down in the map prefixed to my *Origines Biblicæ*. Further, the western and eastern limits attributed by Mr. Ainsworth to these alluvia* apparently approach also very nearly to the limits given to them in my map†.

Having then shown that “there occurs, at a rough calculation, a distance equal to, at the least, 70 miles, between the limits of the latest deposits by transport and the plain of Babylon ‡,” Mr. Ainsworth proceeds to argue, that “as the site of Babylon is separated by a wide extent of deposits of a different nature from the latest deposits of transport which belong to the basin of the Euphrates, it is evident that it is impossible to reconcile the supposition of these latest deposits by transport being identical with the Noachian deluge, and of the deposits which intervene between them and the soil of the Tower of Babel, having been deposited in the short interval of time between the Deluge and the dispersion of mankind§.” He therefore concludes, that “the alluvium of the Euphrates divides itself distinctly into that which was ante-

* p. 113.

† The two severest and most detailed critiques of my *Origines Biblicæ* are from the pens of the well-known rationalist Dr. Paulus, in the *Heidelberger Jahrbücher* for January 1835 (new series, vol. ii. pp. 43—61), and the Rev. H. H. Milman in the *Quarterly Review* for November 1834 (vol. lii. pp. 496—519). Both these writers defend the *traditional* identification of Babylon with Babel! The latter says (p. 504), with reference to the above subject, “Mr. Beke’s is the first attempt to reconstruct history on the principles of the young science of geology; but if historical speculation allies itself with science, it must submit to all the severe rules of scientific disquisition. It must take nothing for granted; it must not be contented with sketching on a map the probable line of coast which it may choose to assign to the Persian Gulf or any other body of water. It must not only enlarge, if necessary, the borders of the received chronology, but be in possession of accurate geological information as to the nature of the dry land which it thus converts into sea. When Mr. Lyell, or some other equally observant and highly gifted geologist, shall have surveyed the whole of this tract, and, on his geological responsibility, shall have established we will not say, but, found reasonable grounds for conjecture, that at the date assumed by Mr. Beke the sea did advance so far inland, we shall bow to *his* authority.”

It is therefore most gratifying to me to be able thus to appeal to Mr. Ainsworth as an authority for the fact that *the alluvial deposits do actually extend so far inland* as I had asserted. Their *date* is now the only point in question.

‡ p. 105.

§ pp. 104, 105.—Mr. A. accordingly considers these latest deposits by transport to be the remains of a cataclysm anterior to the Noachian deluge. See p. 101.

Babylonian (being also ante-Noachian) and that which is post-Babylonian; and the comparatively large extent of ante-Babylonian alluvium contains whatever matters the great cataclysm . . . deposited upon the surface of the earth*."

But, in coming to this result, Mr. Ainsworth does not appear to have considered a further conclusion which must necessarily follow from his premises. It is, that if the alluvial deposits of the basin of the Euphrates,—consisting, as he informs us, of "clays remarkable for containing an excess of chloride of sodium or marine salt†," and extending from the neighbourhood of Felújah as far as the sea "to the exclusion of all other formations‡,"—be partly of *ante-* and partly of post-Noachian origin, then the Noachian deluge itself has, in point of fact, left no intervening traces whatever of its *separate* existence; and as such an event, let it have originated as it may§, could not possibly have happened without leaving traces, and those strongly marked ones, of its occurrence, to say that it has left no marks of its separate existence is tantamount to saying that it had no existence at all.

That this is not Mr. Ainsworth's intention is evident; and yet it is only a corollary inevitably resulting from his arguments. Hence I feel persuaded, that upon consideration he will admit that the whole of the alluvial deposits of Babylonia and Chaldæa,—being *of the same formation*, without the intervention of the remains of any cataclysm, and proceeding from causes which are at the present day still in active operation at the mouth of the Euphrates,—must necessarily have originated altogether since the Noachian deluge. If this be conceded, then Mr. Ainsworth's own arguments|| go to prove that the distance of 70 miles between the commencement of the alluvia and the site of Babylon, could not have been formed in the period between the Deluge and the erection of the Tower of Babel, and consequently that the site of the former cannot possibly be identified with that of the latter; and when once this identification is done away with, and the simple historico-geological question is left free from the clog placed on it by the locality traditionally attributed to the Tower of Babel, I have every reason to expect that Mr. Ainsworth will see sufficient grounds for altering his opinion with respect to the *rate* of the advance in former days of the alluvial deposits upon the sea.

* p. 107. † p. 105. ‡ p. 106.

§ Mr. Ainsworth cites without disapprobation my construction of the Hebrew words "fountains of the great deep," as meaning "the clouds;" whence I attribute the Flood to *ruin* alone. See *Orig. Bibl.*, p. 319 *et seq.*
|| p. 105.

That all the historical evidences are in favour of separating the Babylon of Nebuchadnezzar from the Babel of Genesis, has been, I apprehend, already sufficiently shown by me in the pages of your Journal.

I should have wished to come here to a conclusion; but before doing so, I am, however unwillingly, compelled to advert to another subject.

Before proceeding on his Expedition to the Euphrates, Colonel Chesney was so kind as to assure me that the opinions expressed in my *Origines Biblicæ* with reference to the countries he was going to visit should receive every attention; and from the frequent reference to my writings made by Mr. Ainsworth, I conclude that, if that gentleman was not already acquainted with my work, it was placed in his hands by Colonel Chesney.

I will not think of complaining that in every instance in which Mr. Ainsworth has found it expedient to refer to me, with a single exception, (that with respect to the cause of the Deluge, in p. 107,) it has been only to differ from me in opinion*. Neither will I attempt the invidious task of seeking how far the opinions enunciated by me might, not unreasonably, be presumed to have given rise to the expression of similar views, or to the consideration of the same subjects, on the part of that gentleman: I am even willing to suppose that such coincidences as may exist are accidental. But I cannot do otherwise than express my regret that in one particular instance, in which he has done me the honour to adopt not merely my opinions but actually my words, reference should not have been made to the source from which they were derived. The passage in question, as given by us both, is as follows:

“In making the foregoing calculation [as to the comparative advance of the land in the Adriatic Sea and in the Persian Gulf,] it has been assumed that the circumstances are similar in both cases: this, however, is not precisely the case. The Adriatic is a gulf in a tideless (or almost tideless) sea: the rise and fall of the tide at the head of the Persian Gulf is (I believe,) as

“In order to form even an approximative opinion upon the amount of time which the alluvial formations of Babylonia, Chaldæa, and Susiana have occupied in their deposition, all the various circumstances of their origin must be taken into account.

“The first and most important of which is, &c. &c.

“Fifthly, the nature of the waters which receive these al-

* See pp. 53, 105, 126, 149, 160, 190.

much as 8 or 9 feet at spring tides. From the effect, therefore, of the tide, and also from that of a current which sets across the head of the Persian Gulf from east to west, the accumulation at the mouths of the rivers would doubtless be checked, and a portion of the alluvium would be carried east[west]-ward and southward, and be dispersed in those directions over the bottom of the gulf. That such is actually the case is shown by the chart of this gulf lately constructed by the officers employed in its survey by the East India Company; from which it appears, that whilst along the north-eastern or Persian side of the gulf the depth, in great part, exceeds forty fathoms, along the whole of the Arabian or western and southern side it varies from twenty fathoms to shallows which are unnavigable, and which, to all appearance, will soon rise altogether above the level of the sea."—*Phil. Mag.* for July 1835, vol. vii. p. 43.

luvial deposits. The rise and fall of the tide at the head of the Persian Gulf is as much as nine or ten feet in spring-tides. There is, besides, a constant current which sets across the head of the gulf from east to west; the accumulations at the mouth of the rivers hence meet with a check, and a portion of the alluvium is carried to the westward and southward, and dispersed over the bottom of the Gulf; that such is actually the case, is shown by the chart of the Gulf lately constructed by the officers employed in the survey by the Honourable the East India Company, from which it appears that whilst along the north-eastern or Persian side of the Gulf, the depth, in great part, exceeds 40 fathoms, along the whole of the Arabian or north-western side, it varies from 16 fathoms to shallows which are unnavigable, and which to all appearances, will soon rise altogether above the level of the sea."—Ainsworth, p. 141.

I am ready to believe that the omission of the reference to me has been unintentional; still, in justice to myself, I am bound to allude to the fact.

I am, Gentlemen,

Your most obedient Servant,

Leipzig, March 23, 1839.

CHARLES T. BEKE.

Royal Astronomical Society Dec 16/57

From the author
REASONS

FOR

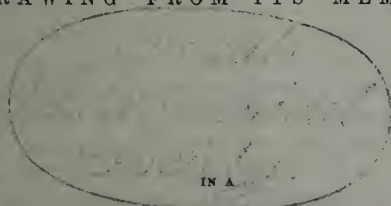
RETURNING THE GOLD MEDAL

OF THE

GEOGRAPHICAL SOCIETY OF FRANCE,

AND FOR

WITHDRAWING FROM ITS MEMBERSHIP;



LETTER TO M. DE LA ROQUETTE,

GENERAL SECRETARY OF THE CENTRAL COMMITTEE OF THE GEOGRAPHICAL SOCIETY OF FRANCE,

FROM

CHARLES T. BEKE, PH.D., F.S.A.,

MEMBER OF THE ROYAL GEOGRAPHICAL, STATISTICAL, AND SYRO-EGYPTIAN SOCIETIES OF
LONDON, AND OF THE ORIENTAL SOCIETY OF GERMANY.



LONDON:

JAMES MADDEN, 8, LEADENHALL STREET.

1851.

LONDON :
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GREAT ST. HELENS.

A LETTER

TO

M. DE LA ROQUETTE.

SIR,

On the 18th July last, I had the honour of transmitting to M. Poulain de Bossay, President of the Central Committee of the Geographical Society of France, a memoir entitled "*Examen critique du Voyage à Kaffa de M. Antoine d'Abbadie, dans les Années 1843 et 1844, pour chercher la Source du Nil*," containing also an answer to certain statements respecting me made by that traveller in the *Bulletin* of the Society (3rd Series, vol. xii. pp. 157, 158), with the request that it might, in like manner, be inserted in the *Bulletin*; in reply to which I was favoured with your letter of the 9th August, informing me that my memoir had been communicated to the Central Committee on the 2nd of the same month, and that its further consideration had been postponed till the first meeting of the Committee in the month of October.

I have now to acknowledge the receipt of your letter of the 24th November, communicating to me a minute of the proceedings of the Central Committee at their meeting on the 18th October, to the following effect:—

"The General Secretary brought to the notice of the Central Committee—1st, the manuscript memoir which Dr. Beke had addressed to the Society respecting M. Antoine d'Abbadie's Journey to Kaffa; 2ndly, the notes of MM. Daussy and Walckenaer relative to the same; 3rdly, M. Antoine d'Abbadie's answer in detail to each of Dr. Beke's observations; 4thly, the minute of the letter which M. de la Roquette had addressed to Dr. Beke, acknowledging the receipt of his memoir.

"The General Secretary then gave a summary of the facts of the case, and suggested that the Central Committee should bring to a close a discussion which they could not but deplore,

and which had already occupied them only too long; and, with this object, he proposed that the Central Committee should refer all the papers relating to the matter to three of the Members who had already specially directed their attention to it, to be named for that purpose, in order that they might again examine the whole question and submit to the Committee a definitive resolution on the subject, which should not be open to discussion.

“After hearing the observations of several of the Members, the Central Committee, believing themselves to be sufficiently informed, passed purely and simply to the order of the day.”

When I consider the past acts of the Central Committee with reference to M. d’Abbadie and myself, I must confess that, however I may regret their present conduct, I am not surprised at it. On repeated occasions they permitted M. d’Abbadie to speak of me in the Society’s *Bulletin* (vol. iii. pp. 346, 349, 350; vol. ix. pp. 107, 108; vol. xii. pp. 146, 157, 158, 228), in a way quite unsuited for the official organ of a scientific body;—when I desired to vindicate myself from an unjust accusation brought by him against me in that work, they not only refused to admit my vindication, but allowed him to place on record (vol. xiii. pp. 333, 334) an additional explanation, which was virtually a further inculpation of myself;—more recently (vol. xiii. pp. 384-391) they *volunteered*, on behalf of M. d’Abbadie, a direct attack on me in the *Bulletin*, in a highly adverse criticism of a Paper of mine in Berghaus’s *Physikalischer Atlas*;—they next awarded to M. d’Abbadie the annual prize of the Society for the most important discovery in geography, on account of his travels in Abessinia, of which his pretended journey to Kaffa forms the most important part;—and now that they are asked to do me the bare justice of letting me in my turn be heard,—the discussion which you so much deplore having hitherto been, in the *Bulletin*, all on one side,—they pass over my representations in contemptuous silence.

Such conduct, even if it be charitably supposed to have *originated* in ignorance of the real facts, has now assumed the character of direct partisanship and of a determination to withhold justice in a matter, which, however it may affect me individually, concerns far more the cause of science and of truth.

That cause it is unnecessary for me to advocate: I leave it to the protection of the scientific world at large. But, as regards myself personally, I cannot quietly submit to treatment which I consider as insulting as it is unjust.

In the year 1846, the Geographical Society of France conferred on me its gold medal for my travels in Abessinia; and following, as it did, the award of the gold medal of the Royal Geographical Society of London, this additional token of the estimation in which my labours were held by the geographers of Europe was received by me with feelings of more than ordinary gratification. But when I now see the same Society not merely refusing to do justice, but actually descending from the position of a judge to assume the character of a partisan and advocate; and when I also see it conferring a distinction, which, to be appreciated, ought only to be the reward of undoubted merit, on one who clearly does not possess that merit; I feel that it would ill become me to retain such a distinction any longer.

I owe it therefore to myself to lose no time in transmitting to you, as the General Secretary of the Central Committee of the Geographical Society of France, the gold medal which was so awarded to me, with the request that you will, in my name, deliver it up to the Society at its next General Meeting.

I have further to notify to you, in your said capacity, my withdrawal from the Society, and to request that my name may be omitted from the list of its *Correspondents perpétuels*.

As, in the critique in the *Bulletin*, it was stated that the pages of that Journal were open to any observations I might think proper to make thereon, I prepared a reply accordingly, but did not deem it advisable to forward it to you for publication till I had learned the decision of the Central Committee respecting my "*Examen critique*." Of course, after what has occurred, I do not look for the appearance of that reply in the *Bulletin*; but I have appended it to the present letter, in order that it may be seen how totally unfounded the strictures are to which the Committee have given their sanction.

I have the honour to be,

Sir,

Your very obedient Servant,

CHARLES BEKE.

London, December 2nd, 1850.

A P P E N D I X.

Reply to a Critique, in the Bulletin of the Geographical Society of France, of Dr. Beke's Paper "On the Geographical Distribution of the Languages of Abessinia and the neighbouring Countries."

The thirteenth volume of the *Bulletin* of the Geographical Society of France, recently published, contains, at pages 384-391, an Article criticising a Paper of mine, "*On the Geographical Distribution of the Languages of Abessinia and the neighbouring Countries*," of which a German version is printed in Berghaus's *Physikalischer Atlas* (Geographisches Jahrbuch, i. pp. 7-14), and an English version in the *Edinburgh New Philosophical Journal* (vol. xlvii. pp. 265-279).*

As that critique has appeared under the sanction of the Central Committee of the Geographical Society, and as it contains many misstatements, I think it necessary to reply to it; since the cause of truth might suffer, if misrepresentations sent forth into the world under such an authority were to remain unnoticed.

With regard to the general objections raised in the critique against the classification of the languages of this portion of Africa adopted in my Paper, I must remark that the classification in question is not mine, but Dr. R. G. Latham's, upon a portion of whose Report to the British Association for the Advancement of Science (see *Report of the Association* for 1847, pp. 197-210) my Paper only professed to be a commentary; and that, so far from its being exclusively founded on any substratum of mine, it is the result of that eminent linguist's critical examination and comparison of all the materials extant relating to African philology. Consequently, the objections in the *Bulletin* on this head would not touch me, even if they were well founded.

In like manner it is not due to me, but to Dr. Latham, that M. d'Abbadie's alleged collections of languages are placed "in the second rank;" though it cannot be denied that they are properly so placed. As long as M. d'Abbadie gives merely a string of *names* of languages, instead of publishing vocabularies of the languages themselves, no man of science would be warranted in adopting those languages or any arbitrary classification of them which that traveller chooses to put forth.

With these preliminary observations, I now proceed to the particular

* This Paper had been read before the Section of Ethnology of the British Association for the Advancement of Science, on the 14th August, 1848, and again before the Ethnological Society of London, on the 22nd November of the same year.

consideration of the comments in the *Bulletin* on the several heads of my Paper.

As regards the languages of Nubia and Fátsokl (Fazoglo), the Reviewer remarks that they are "still too little known to allow of any presumption as to their classification." Dr. Latham is evidently of a different opinion, since he *has* classed them in his Report (pp. 197-203).

Concerning the Bishárye or Bidja (Beja) language, it is said—"we reject the name of Bischarys (called Bishárye in Dr. Beke's map), and adopt in preference the national name of Budja." But the fact is suppressed that the name "Bidja," which is given by Dr. Latham, *is likewise marked in my map!* And as to the designation "Bishárye," it is used by Salt and Burckhardt as well as by all other travellers who have written respecting the people to whom it belongs, and it stands in most maps containing the country inhabited by those people; so that something more is necessary to justify the *rejection* of it so summarily.

The Reviewer adds that he doubts much "whether the language of Sawákin ought to be placed in the Ethiopic class." But as, according to Dr. Latham, "the short Suákin vocabulary of the Bishárye is shown in the Mithridates to have affinities with *the Argubba*," and as the Reviewer himself states that "the languages of Amhára, *Argóbbá*, Guráge, Gafat and Adhári"—which all belong to the Ethiopic class—"appear to be properly placed together;" I apprehend that I must be right in my surmise that the language of Suákin belongs to the same class.

What the Reviewer means, when he says, in speaking of Dr. Latham's 17th class, "we find here a medley of languages of which the affinities appear to us to be quite different," I am at a loss to comprehend. As regards the language of *Arkiko* (one of this class), he asserts that this "denomination is not even that of a language,"—he having however just before spoken of the "*language* (langue)" of *Arkiko*, and said that it is "closely allied to the written Ethiopic language." And he then goes on to say that "the languages of Tigray and *Arkiko* ought to be separated from those which follow,"—that is to say, from the *Amharic* and other cognate languages of the south-east of Abessinia, which are included with the former in Dr. Latham's 17th class. All philologists have however hitherto classed the Tigre and Amharic languages together, as daughters of the ancient Ethiopic; and, in particular, Mr. Isenberg, in his last published work (*Abessinien und die evangelische Mission*, vol. i. pp. 9, 10), in treating of the Amharic, thus expresses himself:—"Though a *dialect of the Ethiopic* and therefore of a Semitic character, still it possesses something more heterogeneous than its mother language or than the Tigre, with which it is cognate and which retains the greatest resemblance to the Ethiopic;" referring, in proof of his opinion, to the published works of the learned Job Ludolf and of himself. That the languages of Guráge and *Argóbbá* belong to the "Ethiopic" class is asserted by Messrs. Isenberg and Krapf, and that the same is the case with those of Harrar (Adhári) and Gáfat appears from vocabularies collected by myself. (See *Transactions of the Philological Society of London*, vol. ii. p. 92.)

The Reviewer next asserts that "the Geez or Ethiopic language is still spoken in those countries." Mr. Isenberg says, on the contrary (*op. cit.* vol. i. p. 10), that "the Ethiopic has entirely ceased to be spoken (*wird gar nicht mehr gesprochen*), for how long a time is not known;" and I prefer believing him. Of course, this assertion of Mr. Isenberg is to be understood in its natural sense, in the same way as, in treating of the languages of the Italian peninsula, it would be correct to say that the *Latin* has ceased to be spoken there.

The next assertion made by the writer in the *Bulletin* is a most extraordi-

nary one. In speaking of the Ethiopic language, he says:—"Dr. Beke has thought proper to *suppress* this language in his map;" when the fact is that not merely is the "Ethiopic" the generic name of Dr. Latham's 17th class which is adopted by me, but in my map this identical name actually stands in capital letters, extending across a tract of country from the 10th to the 16th degree of north latitude!

And lastly, as regards this class, the Reviewer asserts that "Dr. Beke confounds, under the common denomination of *caste*, the Zallan, Kamant, and Wacto, and says that they have separated themselves from the Ethiopic race." This, however, is not the fact. For I look on each people as forming a separate *caste*, which, never having belonged to the "Ethiopic" race, can never have separated from it; and, further, I do not confound them with one another, though it is probable that, as the remains of the primitive inhabitants of the country, they had a common origin. The Zaláns are described by Mr. Isenberg as having affinity with the Faláshas, an aboriginal Agau race, and as living quite apart from the rest of the inhabitants, "forming a separate class of people,"—that is to say a *caste*. (See his *Amharic Dictionary*, *sub voce* ZALAN.) The *pagan* Kamáunts, according to the same traveller, "have a language of their own;" and the Reviewer himself admits that "they are of a primitive race speaking a Huarasa dialect,"—which means that they speak a dialect of the language of Kwára; and since they are thus shown to differ from the Amháras in origin, religion and language, they also clearly form a separate *caste*. The Waitos—it is thus I wrote the name, and it is so printed in the English version of my Paper, though in the German version it is misprinted Wactos—do not merely distinguish themselves, as the Reviewer affirms, "from the rest of the Abessinians by their predilection for the flesh of the hippopotamus;" but, according to Mr. Isenberg, they eat likewise the flesh of wild beasts and "*other animals held in abhorrence by the Abessinians*," which fact alone is sufficient to lead to the presumption that they are not of the same race (*casta*).

With respect to Dr. Latham's *Galla* class, the only objection raised by the Reviewer is that "no African language gives itself the name of Galla." Nevertheless, as the name "Galla" has been sanctioned by its universal adoption, both in Europe and in Abessinia, during three centuries, it would certainly not be worth while now to substitute for it the designation "Ilmorma" proposed by M. d'Abbadie, especially as this name is not that which the Gallas themselves give to their language, which they call *Afan-Orma*. (See my *Enquiry into M. d'Abbadie's Journey to Kaffa*, p. 46.)

As our attention has thus been directed to the "Ilmorma" language, I will take this opportunity of noticing the alleged specimen of the written character of that language, which was sent to Paris from Berberah by M. Arnauld d'Abbadie in January 1841, in a document professing to be a letter from Abba Bógibo, King of Enárea, to Dédjach Goshu, the ruler of the Abessinian province of Godjam. A *fac-simile* of this curious document, published in the seventeenth volume (2nd series) of the *Bulletin*, with a translation of an alleged Arabic version of it at pp. 124-126 of the same volume, excited no little interest in the literary world. To repeated enquiries made respecting this "Ilmorma writing," M. d'Abbadie has never given a satisfactory reply. His last explanation—if such it can be called—is found in a letter printed in the *Athenæum* of April 12th, 1845 (No. 911, p. 360), in which he says:—"I forgot to mention that the letter sent to Dadjach Goshoo by Abba Bagibo, King of Inarya and Limmoo, is, and probably long will remain, a mystery. *The facts of the case are too long to be detailed at present.* The hope of elucidating this unknown character was one of the

prominent objects of my voyage to Inarya and Kaffa. I am now satisfied that it is *neither Ilmorma writing* nor a hoax of Abba Bagibo."

This, however, will hardly satisfy the learned world. The statement just cited was made in September 1844; and we are now at the end of 1850 without any further hint on a subject, which was then alleged to be of such importance as to give occasion to a special journey to Enárea and Kaffa—which journey, moreover, has since been ascribed to a totally different motive, the desire, namely, to discover the Source of the Nile. (See my *Enquiry*, p. 1.) There is therefore reason for suspecting that this writing, though said not to be a hoax of Abba Bógibo, may, after all, be a hoax by somebody else; and M. d'Abbadie would do well to state, without further loss of time, "the facts of the case," which were "too long to be detailed" in 1844, in order to prove that this alleged, *but now repudiated*, "Ilmorma writing" is not a fabrication, such as the *Formosan* invented by the famous George Psalmanazar.

The next objection urged in the critique is that "the name Changalla [Shánkala] has in Africa no other signification than that of *negro*, and is not sufficiently definite." But I said nearly the same, and protested, in like manner as M. Russegger had done before me, against the indiscriminate use of the term in question. Still, as according to the last-named traveller, there actually does exist in the valley of the Blue River a negro tribe called *Shangollo*, there does not appear to be any sufficient reason why this name should not be used with a restricted application to the negroes of Agaumider and the valley of the Blue River, as proposed by Dr. Latham.

My classing together of the *Dalla* and *Bárea* languages was only suggestive, and was occasioned by Dr. Latham's assertion that these two languages have affinities with one another, as well as by the fact that the *Dalla* are called by Salt "Shánkalias (*i. e.* *negroes*) of the Tákkazie," while *Bárea* would seem to be not the name of a people, but an appellative signifying "slave," that is to say a *negro*.

Having thus gone through the languages classed by Dr. Latham, I now come to M. d'Abbadie's list of *names* of languages, which were placed by that philologist "in the second rank" for the reason already stated. On this subject the writer in the *Bulletin* is pleased to say that my remarks "are some of them superfluous and the others rash." We shall soon see what foundation there is for such an assertion.

The critic's first remark is that it is "proper to retain the name *Afar*, rather than the exotic term *Adal* or *Dankali*." I did not however object to the name *Afar*, in itself. My task was simply to endeavour to identify M. d'Abbadie's languages, of which he had given the names alone, and thus to class them with the known languages of which we already possess published vocabularies; and with this view I explained that M. d'Abbadie's *Afar* "is no other than the *Adal* or *Dankáli* (plur. *Danákil*) of modern travellers in Abessinia;" referring to six authorities cited by Dr. Latham, by all of whom either the term "*Dankali*," "*Danákil*," or "*Adaiel*" is used.

The Reviewer next says, "we should be glad if the language of the Comal [Somális] were as well-known as Dr. Beke affirms it to be." I affirmed, however, nothing of the sort. M. d'Abbadie had made use of the expression "*Szomaliod*," which was never employed by any one before him; and in order that this might not be imagined to be some new language, I remarked that it is nothing but that "of the *equally well-known Somaulis* or *Somális*." And I see no reason to modify this expression; since the *Somális*, as a people, are perfectly well-known to everyone who has visited the north-eastern coast of Africa, and their name is equally well-known to all

who have occasion to consult the map of that quarter of the globe. If philologists will agree to adopt M. d'Abbadie's designations of Szomaliod, Ilmorma, Saho, Afar, Hamtonga, Amharna, Huarasa, and many others, in the place of the "well-known" names Somali, Galla, Shoho, Dankali, Agau, Amharic, Kwara, &c., I for my part promise not to raise any objection.

It is next asserted that I objected to the "*distinct* classification" of the language of Tufte. This is not correct. My objection was that "M. d'Abbadie had placed it *side by side with the Afar, Ilmorma, &c.*, with the help of a list of only ten words"—as, in fact, the critic himself begins by admitting!

He further says that "to this distinct classification [of the language of Tufte] the *only* objection raised by Dr. Beke is its geographical position, an objection which is far from possessing so great a value in ethnology as he attaches to it. *The same motive* induces him to class, but altogether erroneously, the Tambáro language with that of Gongga." This again is incorrect. I certainly did adduce the geographical position of those two languages as *one of the reasons* why I was "inclined to place them among those of the Gongga class, by which they are geographically surrounded;" but I gave the further reason that Dr. Krapf expressly states that the language of Kaffa, which is of the Gongga class, "is common to Gobo, Tufte and Tambáro," and I adduced as an additional reason M. d'Abbadie's assertion in the *Athenæum* (No. 1042, p. 1077) that in the language of Tambáro the word *agancuta* signifies "moon," as in that of Kaffa the expression is *agane*, and in "Dawro, whether of Kullo, Gobo or Walaytza, it is *agina*;"* which, as all the latter languages are of the Gongga class, proves, so far at least as this word is concerned, the affinity of the Tambáro with that class.

In September 1844 (see *Athenæum*, No. 911, p. 360), M. d'Abbadie affirmed that the Tambáro language, of which his vocabulary was then "lamentably small," is a "member of the Amhára family." He now affirms that he has "collected more than *two thousand two hundred* words of this language, and that it "has nothing whatever to do with the Gongga," though it has just been shown, on his own authority, that as regards the word "*agancuta*" it certainly has "to do" with it. After the proofs given in my *Enquiry into M. d'Abbadie's Journey to Kaffa*—and even after what has been observed here—of the little dependence to be placed on his affirmations, however positively and unequivocally made, I do not hesitate to express doubts as to the truth of his present assertion that he has "collected more than two thousand two hundred words" of the Tambáro language, especially as his list of languages published in the *Journal Asiatique* (vol. xii. pp. 372, 373), which was sent from Aksum so recently as the 17th of November, 1847, when he was on the point of quitting Abessinia, does not contain a trace of any such collection; and it will be well for philologists to be on their guard against fictitious Abessinian vocabularies, similar to those of the *Ho, Bomba*, and *Salo* languages of M. Douville.

But to proceed with the critique in the *Bulletin*, which will now offer some glaring examples of direct contradictions to M. d'Abbadie's assertions on previous occasions. In the first place we are told:—"Dr. Beke is mistaken in applying the term *Dáwaro* to an African country, of which he is unable to determine the limits. Formerly, under the sole rule of the ancient kings of Aksum,† there was indeed a country named *Dáwaro*, which is mentioned by Ludolf; but at the present day this name appears to exist

* M. d'Abbadie has more recently (*Bulletin*, vol. ix. p. 108) asserted that the "moon" is called "in Kafaco, *agane*; in Tambaro and Kambata, *agancu*; - - - in Dawro (Kullo, Gobo, &c.), *agina*; in Walayza, *zolinta*."

† I do not know of any period when such "sole rule" had existence.

only under the form of Dauro or Dauroa, which designates a language spoken in three contiguous countries, namely Kullo and Gobo, both within the peninsula of Kaffa, and Walayza, which lies to the east of the two former, on the left bank of the Uma." If, however, we turn to a previous volume of the *Bulletin* (2nd series, vol. xix. p. 438), we shall there find it expressly stated by M. d'Abbadie (whose authority the Reviewer will not, I presume, venture to dispute,) that "the country named Waráttá by the Gallas is called *Dawro* by the natives," and that "*Dawroua* signifies an inhabitant of *Dawro*!" The frontiers of this country of Dawro are further stated by M. d'Abbadie (*ibid.* p. 440) to be "eight days' journey from Bonga," the capital of Kaffa; so that its limits, in that direction at least, may be determined with sufficient accuracy.

It is next stated—"We do not believe Dr. Beke authorised to call the Se [Shay†] language a dialect of that of Kaffa, inasmuch as M. d'Abbadie says that he has collected several hundred words of it, and thence affirms it to be a separate language." But, on a former occasion (*Athenæum*, No. 911, p. 360), M. d'Abbadie made the following explicit assertion:—"A collection of 400 words induces me to place also *side by side with the Sidáma* [*i. e.* Kaffa] *the Shay language* spoken by the Gimira, Gamarou or Gamrou"—that is to say *by the natives of Kaffa*, who, according to M. d'Abbadie (*Bulletin*, vol. xviii. p. 355,) call themselves by that name. I may ask, if a collection of 400 words was sufficient in 1844 to place the Shay language "*side by side with the Sidáma*" or Kaffa, how many hundred words are now requisite to constitute it "*a separate language*?" And I would further ask, how came it to pass that, while as far back as the year 1844 M. d'Abbadie possessed "*a collection of four hundred words*" of this Shay language, he had no more than *three* hundred when he wrote from Aksum in 1847? (See *Journal Asiatique*, vol. xii. p. 272.)

Yet another example:—It is now stated—"We are enabled to affirm that the Naa language (*Nao* with the article) *is quite distinct from the Se* [Xe, Shay] *language*;" but, on the occasion already alluded to (*Athenæum*, *ut supra*), it was equally affirmed by M. d'Abbadie that "*the Nao language appears a mere dialect of the Shay*."

There is, however, no end of these direct contradictions of M. d'Abbadie, who really seems to have fancied that no one would take the trouble to compare his different assertions made at different times, and that consequently he might say with impunity whatever first came into his head.

In my Paper which forms the subject of the critique in question, I naturally expressed surprise that that traveller should have had a *Doko* in his service nearly two years, and yet should have obtained from him only *twenty-nine* words of what he called "*the Doko language*," and described (*Bulletin*, vol. xix. p. 439) as being "*allied to that of Waráttá*" or Dawro; though on a late occasion (see *Athenæum*, No. 1042, p. 1077, and my *Enquiry*, p. 45) he asserted that "*that name comprehends thirty independent States, most of them using different languages*." We are now told that "*it was the fear of being looked on as a negro* that prevented the Doko interpreter mentioned by M. d'Abbadie from giving him a vocabulary of his language." But he *did* give him a vocabulary, nevertheless, though, like the *Tambáro* vocabulary of 1844, it was "*lamentably small*;" and M. d'Abbadie has now only to explain to which of the "*thirty independent States, most of them using different languages*," these twenty-

† Just as Shoho is written *Saho*; Shiluk, *Siluk*; &c.

nine words of "the Doko language" belong. It is not quite one word a-piece!

As regards the island of Dénab, which I identified with M. d'Abbadie's Yambo, the Reviewer states that "M. Thibaud informs us that this island is inhabited by the Siluk [Shiluk]." Even admitting this to be the case, it affords no sufficient reason why the name Yambo should not be given to the inhabitants of the island by the Gallas or other people occupying the high lands towards the east. It is the multiplicity of names attributed by different natives to one and the same place, that forms one of the greatest difficulties in African geography.

The critic's concluding remark is that "Dr. Beke has supposed, somewhat inconsiderately in our opinion, that the Konfal are identical with the Gindjar, whose dialect is full of Arabic;" adding that he "cannot bring himself to imagine it possible for M. d'Abbadie to have confounded tribes so numerous as those of Gindjar with the paltry settlement (*chétive peuplade*) of the Konfals." In reply to these observations, I will adduce the following statement made by M. d'Abbadie in the *Athenæum* (*ut supra*):—"As for the Konfal, who live between Kwara and the Awawa [*i. e.* the Aghaghá, or natives of Agaumider], I have no sample beyond the first ten numbers, which are partly *Giiz*; and the all but unknown *Konfal tribes* are the most perfect medium between the straight-nosed Ethiopian and the grovelling Negro;" with the remark that it would be strange indeed if these "Konfal tribes", who have now strangely dwindled down into "*la chétive peuplade des Konfal*", should use the Geez or Ethiopic numerals; and I must therefore retain my opinion that their numerals are *Arabic*, like those of the "Gindjar tribes," with whom, from the locality and the physical character attributed to them by M. d'Abbadie, I believe them to be identical.

Having thus commented on the critique in the *Bulletin*, I will only add that it bears strong internal evidence of having come from M. d'Abbadie himself, by whom it was doubtless dictated if not actually written. The Article has however gone forth to the public under the sanction of the Central Committee of the Geographical Society of France; and such being the case, I cannot but express my regret that, as the representatives of a scientific body, they should, by so many oversights and misrepresentations, have made themselves parties in a controversy of which they might properly have been the arbiters.

C. B.

November 4th, 1850.

OBSERVATIONS
ON THE
CLIMATE, SOIL, AND PRODUCTIONS
OF
BRITISH GUIANA,
AND ON
THE ADVANTAGES OF EMIGRATION TO,
AND
COLONIZING THE INTERIOR OF, THAT COUNTRY:

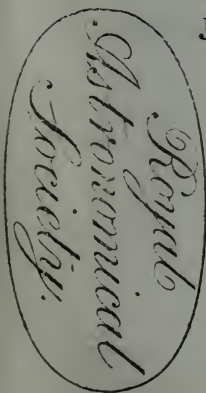
TOGETHER WITH INCIDENTAL REMARKS ON THE DISEASES, THEIR TREAT-
MENT AND PREVENTION: FOUNDED ON A LONG EXPERIENCE
WITHIN THE TROPICS.

BY
JOHN HANCOCK, M.D.

Second Edition.

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1840.



ADVERTISEMENT.

At the request of several influential gentleman connected with the colonies, Dr. Hancock begs leave to submit to public attention a revised edition of these remarks, originally published in 1833-35.

Having resided upwards of twenty-four years in Guiana, and travelled above two thousand miles amongst the rivers, forests, and savannahs, he ventures to hope, that the observations made during that lengthened period, will at the present moment prove both interesting and useful, since the subject of emigration almost exclusively occupies public attention.

OBSERVATIONS, &c.

INTRODUCTORY REMARKS.

THE very general distress prevailing in this country, and the number of people wanting employment, have suggested the project of forming an Association or Company for assisting destitute persons, and families especially, with the means of removing to British Guiana, as being probably the most eligible for Emigrants, and as affording to industrious persons, greater facilities for procuring the comforts of life than any other part of the world. The following remarks (in MS.) having been read by several gentlemen of extensive commercial knowledge, a suggestion has been thrown out to establish a Company on a similar plan to that of the Swan River, or the North American Emigration Company, which appears to be of the most liberal character. By the co-operation of gentlemen concerned in the Shipping trade, Merchants, and proprietors of Estates, such a project would doubtless be soon carried into effect; and the most beneficial results might be speedily realized.

The poor-rates in England are certainly enormous; yet the distress is such as no one would believe who has not examined into it. Many plans for relief have been devised

by benevolent individuals, and by none, perhaps, more judiciously than that by Earl Stanhope, in the allotment of waste lands; for the cultivation at home certainly appears to be of paramount and primary importance. Yet the views of this philanthropic nobleman have not been realized,—nor received the consideration they deserve. They may have met with opposition from deep-rooted prejudice, interest, or ignorance; and the Noble Earl certainly erred if he expected to find all landowners equally liberal-minded. In fact, it appears that, under prevailing impressions, emigration alone will avail, or meet the concurrence of all parties.

And this measure must be regarded as one of vital interest, considering the situation in which the Colonies are now placed, by the measures recently introduced, and by the great disparity in numbers between the black and the white population. It appears, indeed, that such emigration is essential to the preservation of the Colonies as integral parts of the British Empire, and alone can render them rich and productive, preserve order, and secure the property embarked by the present possessors.

It is fully evident that the Colonies are useful as an outlet for the surplus population, for the unfortunate, the labouring poor, and for the enterprising part of the community. According to some authentic statements, England is more densely peopled than any other district of equal extent, not even excepting China or Japan.

Nor will the advantages thus accruing to the mother-country be overlooked by practical statesmen, who see the necessity of emigration from populous countries; a principle recognised and acted on in all ages, the wisest legislators ever having borne testimony in its favour. In a flourishing country like Great Britain, most rich in resources, unrivalled in enterprise and industry, but teeming with an

overabundant population, emigration becomes, we may say, not only advantageous, but indispensable.

Nor has the importance and necessity of encouraging this sort of enterprise been overlooked by the wisdom of the British Government; and the urgency of the measure has impelled vast numbers to embark for distant colonies, where their industry may produce incalculable benefits to themselves and their posterity, whilst it serves to augment the British Empire, and extend its power and commerce in all quarters of the globe. It is true some narrow-minded politicians would maintain the doctrine that emigration tends to paralyse and weaken the parent state. But nothing can be more palpably false than this assertion; it is contradicted by facts, and the sophistry is too absurd to need refutation.

National wealth and power have ever been found to increase with the accession of colonies, and to decline in proportion as these fall off: this history abundantly testifies; and that of ancient Rome especially. In later times, the colonial possessions of Spain have, from bad management, nearly all been lost, and her foreign commerce, which formerly extended over the globe, is thereby almost annihilated. Napoleon Buonaparte, with his forty millions of subjects, became fully sensible that nothing but ships, colonies, and commerce, could enable him to cope with the power of Great Britain.

I may here quote a few words from a well-written pamphlet, entitled, *Practical Advice on Emigration*:—"From various causes, the fields of employment have become crowded, and the labouring classes are looking about for more room and better means of subsistence: emigration, under such an impulse, resembles a stream from an overflowing fountain, which may be guided, but cannot be stopped.

“I deny,” said William Penn, “the vulgar opinion that plantations [colonies] weaken England; they have manifestly enriched and strengthened her; the industry of those who go into a foreign plantation is worth more than if they stayed at home.” Again, England furnishes them with clothes, household stuff, tools, and the like necessities, and in greater quantities than their condition at home could have needed, or they could have bought, and they often return with riches to England.

Prince Talleyrand, who lived to see France *lose* all her colonies in the East and West Indies, and *again establish them* on the coast of Africa, has remarked that, with the ancient Governments, the predominant policy appears to have been, that “Bodies politic ought to reserve to themselves the means of placing to advantage a superabundance of citizens, who may from time to time threaten their tranquillity. It belongs to our enlightened navigators, he says, to tell the Government what are the places where a new country, a salubrious climate, and a fruitful soil, invite our industry, and promise us richer advantages.”

The late Lord Chancellor of England long since expressed himself in similar terms: “The colonial trade is one always increasing, and capable of indefinite augmentation, while the other branches of traffic are of necessity on the wane; it is as beneficial as a home trade. Capital taken from the mother-country to her colonies, is not withdrawn from the empire; it continues to support the productive part of the community. It is a narrow-minded policy which would consider *colonies* as separate and subservient appendages of the State; they are *integral* parts of the empire which is *happy enough* to possess them, and they ought to be considered as such.”

Soil, and Advantages of Cultivation in the Interior.

Guiana presents a great diversity of soil, but the following are the principal:—1st, the clayey or alluvial marshy land of the coast, which extends usually some six or eight miles aback from the sea; 2ndly, the hills of sand and gravel, with some intervening morasses, extending to the falls; and 3rdly, the deep soil of the interior. Below the falls, indeed, are many fertile spots; but these are of limited extent. Unfortunately, both the Dutch and English planters have heretofore confounded this intermediate district with the primitive soil of the interior, or mountainous regions, and they continue to judge of the latter from what they observe below the falls, notwithstanding the great geological disparity.

The coast lands being an alluvial deposit from the sea and great rivers, have indeed, when rendered mellow by labour (the sea being kept out) been rendered rich and productive, and they are still so on the Essequibo coast, one of the richest slips of land on the earth. Numerous plantations (hundreds probably) are abandoned in Demerara and Berbice, for want of adequate labour to keep up the cultivation.

The mountainous country presents to view divers-coloured ochres, indurated clays, and volcanic products, which repose on the granite, with various mixtures of loamy earth and vegetable mould to a vast extent. Beyond this we meet with extensive prairies, chiefly clay and gravel, affording pasture for cattle.

The seasons are divided into wet and dry, which, inland, are very regular, but less so on the coast; and there is a perpetual verdure throughout the year. In the intermediate levels between the ridges of the falls of the Essequibo, the river annually overflows its banks; when this occurs, it

never fails to leave a fertilizing deposit, such as gives a perennial verdure to the banks of the Nile, and like that of the *intervale* lands, so termed, or fertile meadows of the river Connecticut in its course, especially between New Hampshire and Vermont.

Most planters have considered the labour of slaves to be indispensable to successful cultivation on the coast; and with reason, perhaps, as heretofore conducted. It is certain, indeed, that the cultivation on the coast cannot be continued unless it be by the means suggested—by the introduction of emigrants, and the use of animal labour. In proof of this, we might instance the island of Hayti, where, notwithstanding the endeavours of despotic chiefs, the cultivation has so declined, that there is not now a sufficiency of sugar produced for the use of the inhabitants.

None but Hollanders could ever, on such a continent, have thought of robbing the sea, or fencing it out from a swampy coast, with such immense labour, as is found continually necessary to keep up the cultivation. The original Dutch colonists, indeed, seem to have sought in this country only another Holland, and, in a district boundlessly rich and uncultivated, at an early period they set about gaining land from the sea; and accordingly planted themselves on the muddy lands of the sea-shore, where they had the comforting reflection that they must necessarily be drowned by the sea on one side, or by the *bush-water* on the other, unless protected by dykes.

In some instances, however, the Dutch at first cultivated the lands up the rivers; but, in addition to their aquatic propensities, their attention was directed to the coast,—1st, by the facility then existing of procuring slaves in abundance, and at a very trifling expense, from the coast of Africa; 2ndly, by the necessity of keeping a military force inland to overawe the Caribees; and 3rdly, by the immediate contiguity to the shipping.

The first two motives no longer exist. And the third is unworthy of regard in a country watered, like Guiana, by numerous large rivers. But the planters, in the meantime, appear to be unaware of the advantages of the interior, and continue plodding on in the old system, not knowing how to avert that destruction which awaits them,—notwithstanding there lies within their immediate reach a soil rich in fertility, boundless in extent, and requiring only some improvements as to water-carriage and roads, to render it more accessible and speedily productive.

On the cultivation of the interior, my remarks are entirely founded upon personal observation in various parts of Interior Guiana, on the Essequibo and Parime, as well as on the Orinoko, where I had the opportunity for more than three years of calculating the avails of agriculture, and of seeing persons of no pecuniary funds becoming rich with very slight industry.

It was also exemplified amongst those tribes who, as Mr. Humboldt says, “inhabit the country so little known between the sources of the Orinoko, and those of the rivers Essequibo, Carony and Parime,” of which we may say, with the Abbé de Pradt, “Let us not dispute the fact, but candidly confess that, as yet, America is only discovered in name, and geographically. The treasures it contains are still buried riches, which its freedom alone can discover to the Old World.”

In further illustration of this, I may observe, that there is, or was not long since, existing a coffee-field up the Essequibo, (at Ooropocary, about 40 leagues inland,) which has been planted at a period unknown, supposed to be about the first settlement of the Dutch, and this is found to continue bearing in abundance,—nature alone, on this fertile soil, keeping up a reproduction of the trees! It is a fact, that these interior lands will produce far more sugar, coffee, cocoa, &c., than the sea-coast, and that with half the labour;

of which I have had the fullest demonstration up the Orinoko, where crops of cocoa and coffee are produced, equal in abundance and quality to those of Caraccas.

The planters are not aware of this ; and when, in regard to sugar in particular, I remarked to them the size of the canes, and that they often exceeded thirty feet in length, it was thought quite impossible. On the coast, they commonly grow upright, and to the height of six or eight feet; but inland, their growth is so luxuriant, that they often fall and stretch to a great length on the ground. I may add too, that these enormous growths are found almost in a state of nature, or without any weeding, trenching, or labour of drainage, and contain a more pure saccharine juice, without that impregnation of sea-salt, which, in new lands on the coast, impedes the granulation of the sugar.

The inland tribes, moreover, are fond of agriculture, and there the plough might be used with vast advantages. The use of this was introduced with astonishing effect among the Cherokees, the Creek, and the Seminole Indians of North America, by the immortal Washington, whose military greatness was of a different stamp from that of tyrants and of great commanders in general ; and this act towards the Indians was viewed by philanthropic minds as one of the most glorious of his life.

The lands alluded to are not only best adapted for the staple articles of sugar, coffee, cocoa,* cotton, and indigo, but equally so for numerous others, which will not thrive on the coast. No soil can be more congenial for the produce of dates, figs, olives, and grapes of superior quality,

* It is strange, indeed, that this valuable production, requiring so little labour, should have been so neglected on a soil the most congenial to it, especially by those who are aware of the grateful and restorative properties of *cacao* or the chocolate nut, well named by the great Swedish naturalist, *Theobroma*—food of the gods.

as proved by the Friars of Carony ; as well as for the various aromatics and spiceries, such as the nutmeg, cloves, ginger, allspice, and cinnamon.* From the illiberal policy of the Spanish Government, and old Spain being the country of grapes and olives, the cultivation of these and various other products was prohibited in Spanish Guiana. This is the natural soil of the odoriferous vanilla, which has been taken to Martinique and sold at from fourteen to twenty dollars the pound. Dying woods, cochineal, wild honey, gum copal, &c., abound in the forests, besides a multitude of treasures unknown to Europeans.

Many of our most valuable and expensive medicines, moreover, could be cultivated here with facility ; as opium and ipecacuanha, which would give a quick return. The more humid parts would likewise produce the invaluable Sarsa de Rio Negro (*Smilax siphilitica*), which doubtless, with a little research, might be found growing wild.

It is not improbable that some of the more febrifuge species of cinchona (Peruvian bark tree) would be found on the mountain Mackerapan, or others of the elevated range of Parime. But, whether found indigenous or not, this would afford a proper soil for its cultivation, which would be desirable now that the cinchona forests on the declivity of the Andes are becoming exhausted.

The Rubiaceous plants are especially numerous in Guiana. There are several different species of coffee growing wild in the interior parts, as well as of the *Cephalus* genus, of which the true ipecacuanha is one ; and there can be no doubt that the cinchona will likewise be found, all these

* The writer has observed a wild kind of cinnamon on the mountains of Reponony and Parime. It is called by the Caribees *Wabaima*, and by the Portuguese, *Caska preciosa*. It grows to a very large tree, having a sweet aromatic bark. The natives represent its wood as being very durable.

being of the same natural family. Another tree (of a new genus perhaps) found in Pomeroon, and described by the writer, affords a tonic and febrifuge bark, not inferior to cinchona. See Med. and Phys. Journal for January, 1833.

Besides all this, no country in the world abounds more in valuable timber-trees for ship-building, cabinet-work, &c. It is here worthy of remark, that the forest trees do not impede those of humbler growth. The coffee, vanilla, and various others, even require the shade of other trees. In this respect the tropical regions differ from those of higher latitudes, although this fact has hitherto scarcely been known or appreciated, and we see the most valuable timber and fruit trees wantonly sacrificed in clearing the lands in equinoctial America.

Of these, and other native treasures, the medicinal plants, gums, barks, fruits, &c., some account will be given in a proposed work on Guiana. The attention of Europeans was long since excited by the fables of El Dorado, and of the Lake Parime, where the writer has travelled; but whether these contain mines of precious metals or not, their greatest riches, no doubt, consist in the vegetable products of the soil. These lands are but an extension of those visited by Humboldt, on the Rio Negro, which that celebrated traveller designates a *new world* of plants, and where he was confounded by the profusion of new vegetable forms.

The nutritive vegetables, too, are grown in great abundance in the interior; as yams, cassada, plantains, sweet potatoes, and Indian corn. Of the latter, there is one sort, called Maiz de dos Meses, which, as its name imports, yields in two months from the time it is committed to the ground. The return of Indian corn is often 2000 to 1 amongst the Macoosis.

The domestic animals of the interior also are kept with extraordinary facility; as horses, mules, hogs, goats, fowls,

&c.; and horned cattle multiply so much, as to run wild on the savannahs. Indeed, cattle were often killed for their hides and horns, and the flesh left to the vultures, for want of salt; and, notwithstanding milk was rich and abundant, no butter or cheese was made, whilst two or three shillings per pound were given for foreign butter: this marked the state of enterprise and industry amongst the Portuguese. Would British commerce and industry be thus effete in a country so unboundedly rich? On the Parime (beyond the western source of the Essequibo), the beef was one halfpenny per pound, whilst it cost in Demerara a guilder or eighteen pence the pound. Besides this, the interior abounds in wild animals, which afford the most delicate and wholesome nourishment; as bush hogs, deer, mypoories, lapas, the great river turtles and their delicious eggs, as also the manatee, with fish and fowls innumerable. We experienced no want of fish and game in going up the falls, although our party numbered upwards of thirty people.

The rocks afford in the dry season the means of drying and preserving fish, which are caught in vast abundance amongst the falls, especially the *paco*, one of the most delicious articles of food, of which the teeth are formed like those of a sheep, and which feeds entirely on grass and vegetables.* The *lau-lau* (*Silurus* sp.) also is amongst the finest as well as the largest of the fresh-water fishes, which abound in these rivers: it grows to about ten feet in length, weighing upwards of two hundred pounds. Here is also another extraordinary fish, of very large size, scarcely known to naturalists, called *arapaima*, or *warapaima*, with

* The morocoto, cartabac, and some others, are of similar structure, and feed on divers plants, fruits, and nuts, which they crush with their strong molar teeth. Of this group or family of phytivorous fishes, I have a monograph, which will, I trust, ere long be published; for their habits, teeth, and internal economy, sufficiently distinguish them from all the true fishes hitherto known.

✓ scales as large as a half-crown piece, and beautifully striate with crimson.

It may further be considered, that the Indians, who abhor the idea of cultivating the coast lands, will labour most cheerfully on the genial soil of the interior; and that their hire is comparatively trifling.

On the natives of the interior I may here make one observation. The terms "Caribee" and "cannibal" are often confounded: this arose from wilful slander or misrepresentation in the 16th century, owing to the circumstance that the Caribees had too much good sense and spirit to submit, like the other tribes, to degradation and slavery under the control of the monks. It was the falsehoods propagated by wicked men, which produced the mandate of the Spanish king declaring them slaves. This was followed by an atrocious crusade, which depopulated the Caribbean countries bordering on the Orinoco.*

I well know the fidelity of the Indians of Guiana, towards the English and Dutch especially, and feel satisfied that they may be relied on with confidence, whilst treated as rational beings. The chief, Mahnarawa, and other captains of the Caribees and Macoosis, often expressed their desire to be instructed in certain European arts, as that of making axes, hoes, &c., as well as a wish that the Governor of Demerara would form a colony or settlement in their country. This I represented to the Governor, General Carmichael, who expressed an intention of doing something of the kind; but he died soon afterwards, and the project was dropped.

Throughout this rich and beautiful country, the great rivers Essequibo, Demerara, Courantine, &c., afford an easy transit to the higher lands, whence roads and canals

* See Petr. Mart., Herrera, Gomara, *Hist. de l'Ind.*—HUMBOLDT, vol. vi. p. 34.

may be opened to any other parts of the interior. If, then, the Government and people of this country desire to carry out effectually the great measure of emancipation,—to render the greatest possible aid to destitute families,—to introduce the benefits of civilization amongst the native tribes, and at the same time to assist the planters in forming colonies truly valuable,—they will not hesitate for one moment to render the necessary aids for effecting objects so desirable.

The author is well aware that a strong prejudice prevails against the South American Colonies, as being sickly and unfavourable to European constitutions. This idea, it should be known, arose entirely from the (formerly) unhealthy state of a small strip on the saline swamps of the coast, where the settlements were formed by the Dutch; even here, however, this reproach has been in a great measure removed, since the lands have been cleared and drained, and a more salubrious climate can scarcely be found than that of the interior parts now proposed for the settlements: nor should it be passed unnoticed, that one of the chief causes of the mortality which formerly prevailed amongst the troops and Europeans on this coast, arose from the excessive indulgence in spirituous liquors, sleeping in cold air, and stopping the perspiration under the debility so induced. Another cause was referable to the hot woollen clothing preposterously worn by Europeans, which marks the tyrannizing power of fashion.

✓ The superiority in the advantages of emigration to the British West India Colonies over that to Canada or the United States, must be very apparent: those who go to the latter necessarily require considerable means of equipment, whilst in the former comparatively small means only are requisite to render their industry and exertions most promptly available. The length and severity of the winters in Canada render the necessary outfits too expensive

for many of the emigrants,—for those, indeed, who most require them,—whilst the heat of the summer is equally excessive: for two or three months it is felt even more oppressively than within the tropics; and this the writer knows, from personal experience, to be true. In the Canadas, indeed, the difficulties experienced by the emigrants are very great, especially for the first years, in providing provisions and clothing during the long winters.

As to the most suitable clothing for a hot climate, the example of the Portuguese of Parime should be followed, as infinitely the most comfortable and conducive to health. They here make their own clothing, which consists of white but coarse cotton stuff, which is spun in large threads, and wove in the hand-loom of the Indians. This stuff might be fabricated vastly to more advantage by proper looms. It absorbs the sweat, and preserves the body in a more gratefully cool and uniform temperature than any other species of clothing, and is of extraordinary strength and durability. It is made with the Indian or native cottons, which are of a staple much superior to the Bourbon cotton, or others known and cultivated in the colonies, in Georgia, &c.

The native products of Guiana are exceedingly multifarious, and present objects of industry and enterprise most diversified: many different vegetables afford cordage and substitutes for hemp and flax of the strongest and most durable kind; as the fibre of the carata, plantain, coquesa, and the bark of certain trees. The silk, cottons, and different materials of fine fibre, might also be found available to various useful purposes, and furnish new resources to British commerce and industry. Silk-worms might be cultivated most advantageously,* as also the expensive cochineal, this being the native soil of the nopals and cactuses.

* The mulberry, *Morus nigra*, for feeding the silk-worms, might be

But the multifarious objects of industry and enterprise presented in Guiana are beyond conception, and can be but imperfectly indicated here. In short, all the advantages of a fruitful and most healthy climate point out the interior parts of British Guiana as one of the most eligible countries in the world for emigration, and more especially so for destitute families ; and the numbers unemployed who are totally unable to meet the expenses of emigration to Australia or to Canada, seem to point out Guiana not only as a most desirable situation, but as the only available one for the poorer and more destitute part of the community ; the usual voyage here being not more than a month or six weeks, whilst to Van Diemen's Land or Australia the duration of the voyage is more than quadruple that to Guiana.

Vegetable Productions.

The timber on these lands would at least repay the trouble of clearing them. It would be advisable, perhaps, to allow many of the larger trees to remain, especially the more valuable fruit-trees ; such, for instance, as the assepoca, borroway, touruneru, which belong to the *Sapotaceæ*, and of which natural family there are many others unknown to botanists : they bear delicious fruits, and furnish timber of great value : as also the saowary (*Pekea tuberculosa* of Aublet), which bears in vast abundance one of the richest and largest nuts in the world ; it is much used by the inland tribes, and is justly esteemed by them as highly alimentary and restorative. The acqueru is a palm of moderate size, the fruit of which affords an abundance of a sweet bland oil, of a golden yellow colour, and of the finest quality. The large sweet and juicy fruit of the oubudi, (*Ana-*

cultivated ; but other species of this tree are natural to Guiana, as the Fustic (*Morus tinctoria*), which affords the yellow dye-wood of commerce.

cardium giganteum), affords a delicious wine, and its bark is of great use as an application to foul ulcers.* Although this country has been but little explored, it is rather extraordinary that this fruit, one of the finest of the American continent, should still remain totally unknown in Europe.

The daalie, or wild nutmeg, (a true species of the *Myristica*) abounds in the interior, and furnishes a vegetable tallow, which forms excellent candles, and, with an alkali, a soap of the finest balsamic quality. Here are numerous species of *cassia*; the caoutchouc, which gives the valuable elastic resin, and a multitude of gum resins. The Haiowa, or incense-tree, (*Amyris ambrosiaca* of Willdenow), perfumes the forest with its salutiferous balsam; and the great Siruba tree not only furnishes the finest timber in the world for ship-building, but also, by incision, a camphoraceous ethereal fluid, a product which, so far as we know, is without a parallel in nature. The Maatu, besides a pleasant fruit, yields a nutritive vegetable milk, of the same flavour and appearance as cow's milk, or the fluid from the *Palo de vaca*. This tree (Maatu) I found on the banks of Reponony.

The grapes grown in the interior are most delicious, and as much sweeter than those of Europe as the seasons are warmer. Wheat, potatoes, and all the European fruits, no doubt, would flourish on the mountains of Mackerapan, where a cool climate might be attained in a few hours from the banks of Essequibo.

This mountain, the Mackerapan, (about 5000 feet above the level of the sea, and 4000 feet above the plain on which it stands,) is steep and precipitous on the south, facing the savannah, but may be ascended with ease on the east from the river side. This situation would afford a most salu-

This tree, (described by the writer in the Med. Bot. Trans.) grows to more than 100 feet in height, and 14 in circumference: only one species has heretofore been known to botanists,—the common cashew.

tary spot for invalids or convalescents who have suffered from liver complaints, fluxes, and the miasmatic fevers of the coast. The natural advantages are inexhaustible, as food and clothing, materials for building, the finest ornamental woods, timber-trees, &c.; with a vast arable and fertile tract on the north and east, and immense savannahs adapted to pasturage on the south.

By the Society for the Encouragement of Arts many important products have been introduced from the British colonies, and proved highly useful to the manufacturers. They have in vain offered their highest prize, or 100 guineas, for a substitute for a vegetable tar. No efficient one, however, has yet been obtained, nor will it be found, perhaps, except amongst the trees of Guiana. The *Brea*, so called, or gum resins of Rio Negro, the same as abound in the Essequibo, have been found superior, and far more durable than the best Swedish tar; *i. e.* rendering the ropes and rigging more lasting. These are chiefly the produce of certain species of *Icica* and *Moronobea* of Aublet, as I have elsewhere explained, affording a fragrant exhalation, which, in the interior, is considered the most beneficial balsam for the lungs of consumptive persons. Pliny observed, that the Roman forests, abounding with resinous effluvia, were of great advantage to the consumptive; and Bennet, near two centuries past, showed the value of artificial inhalations of this sort.

In fact, this new world of vegetables has never been explored or investigated: many of the plants, indeed, have been made known botanically; that is to say, so far as mere descriptive botany goes, or the notation of external forms; a matter regarded at the present day as a consummate science, although, properly considered, the mere alphabet or stepping-stone to phytology, or genuine botanical science. The intrinsic properties and uses of plants are regarded as

matter of little moment, or unworthy of notice, by those who contemplate the surface only; whilst the native tribes possess the only knowledge of real value on these subjects.

Notices of Animals, &c.

In the month of July, many of the rivers in the upland parts not only overflow their banks, but annually inundate a considerable extent of the neighbouring savannahs and forests, where we meet with the manati, porpoise, the fresh-water dolphins, and divers fishes swimming amongst the adjacent sedges and forests; so that the very words used by Horace to express the greatest contrariety to nature, are here, in part, found to be realized,—*delphinum appingit sylvis*, &c.,—"a dolphin painted in the woods." These aquatics not unfrequently wander too far, and lose their way back to the bed of the river; and the water declining, they are left the prey of tigers or jaguars, and rapacious birds. There are several species of the tiger or panther kind: one grows to near the size of the royal Bengal tiger. They are rarely known to attack men.

Birds, which furnish wholesome and delicate food, are exceedingly numerous; as divers species of ducks, spur-winged geese, marodi or bush turkeys, anaquaw pheasants, partridges, powis, spoonbills, and other large birds, besides smaller ones in abundance. Two large white birds are found in these parts, called jabiru and tejuju, measuring about six feet between the toes and the beak. The latter is the *Mycteria Americanus*, or jabiru of ornithologists (*negro-cope*, or black-head of the colonists): the former appears to be a nondescript, whilst its native name has been transferred to the known species. The beak of the first is bent downwards, that of the other is recurved. On our journey inland, both supplied us with *beef-steaks*, as we termed them, having the same taste precisely; and, to our taste, a

more savoury one could scarcely have been served up by Mr. Ude himself at the Thatched House Tavern.

During the dry season inland, we had occasional showers, which, in the mountainous regions, were usually announced by the piping tree-frogs, but especially by the bill-birds (Toucan), which, before rains, make a noise precisely like the barking of little dogs, so that several times we were deceived, believing ourselves near some Indian habitation. It has by some been supposed that the porpess of the interior rivers is identical with that of the ocean, and that they migrate annually, like the salmon in Europe, between the salt and fresh water. This idea appears to be erroneous; for the Portuguese on the Parime say they are seen *tumbling* in the Branco all the year round, and have never been observed passing the rapids of that river, lower down, between the Parime and Rio Negro. They, doubtless, belong exclusively to the fresh water; and supposing they annually descended to the ocean, it would be a journey, back and forth, of not less than three thousand miles. It is rather singular that this animal, so inoffensive to man,—rather his friend, according to ancient story—is the greatest enemy of the cayman, and the only master he knows in the watery element. So that we find here a contradiction to the little stories of juvenile books,—

“ The crocodile, with watery eyes,
O'er man and every creature cries.”

I have observed three species of crocodiles in Guiana: the kykooty of the coast, the most common, smaller, and found almost from Paraguay to Lake Huron: the acarú and pow-pow are said to grow to twenty or twenty-five feet in length, but I have not seen them above sixteen feet in Essequibo; in the Orinoko they grow larger. Two other kinds are mentioned by the natives, which I have never seen to my knowledge; the teri-teri, a large species, and a

small yellow one, less than the kykooty, only four or five feet in length, (name forgotten) inhabits the cooler upland parts. It is remarkable that the larger species of the saurian tribe are now confined almost to the tropics, although the fossil remains of gigantic species are dug up in the colder parts of the globe. Can this be accounted for from the precession of the equinox, or gradual shifting of the solstice?

Both land and freshwater tortoises are abundant; several species are large, and much esteemed as food; others, smaller, are finely painted. These belong to the division of *Emys*. Their colour, as in fishes, varies according to the localities, or colour of the pools they inhabit; a circumstance which has caused much confusion amongst naturalists, and hence divers names have been given to one and the same species.

There are two species of electrical eel in the rivers and lakes, that is, two *Gymnoti*, which possess the electric power. The nondescript species is black; it has a broad head, and grows very large. I saw one caught at the lake of Angostura, which measured eight feet in length. It is said to form a luscious and delicate viand, yet the natives mostly refuse it, probably from some superstitious motive. The electrical eel is thought to inhabit South America only, but it also exists in Africa, as I learnt from several intelligent negroes of the Ebo and Mandingo country, who were well acquainted with it, under the name of *Yaria*.

The organ which furnishes the mysterious electric or galvanic power in the electrical eel, lies under a muscular fascia along each side and posterior part of the body; it constitutes its only weapon or defence, for the teeth are very weak and small. This fish has rarely been brought alive to Europe, although many have attempted it: the motion of the vessel is said to drown them!

Geological Notice.

The chief component of the swamps or morass lands at the back of the settlements, consists of a black, carbonaceous, vegetable matter, called pegass, which, towards the Pomeeroon and behind the estates, is not unfrequently found to have a depth of six or eight feet. This is altogether distinct, and forms a great contrast with the alluvial land of the coast, which is chiefly an argillaceous deposit, supposed to be brought down by the great rivers. The latter formation has been found by Major Staples to extend to a very great depth, by boring at George-town. In a letter he wrote me he states, that at twelve and at fifty feet depth, he had found fresh water, decayed and semicarbonized *timber*, apparently *Courida* (*Avicennia nitida*). The Major very naturally concluded that this had been, in remote time, the bed of the Demerara river, and I of course supposed, that whether the bed of the river or that of the sea, it had gradually been filled in by the alluvial deposit of earthy materials brought down by the rivers, together with the courida and drift-woods, precisely the same operation as we see constantly going on upon the Demerara coast; and I certainly had not the smallest conception of the ingenious and very novel mode adopted by my friend Mr. Hillhouse, of accounting for such phenomena by raising the surface of the Atlantic fifty feet above its former level.* If in physics we find it necessary at times to assume very vague and improbable hypotheses, it is not so in matters which we see fully explained and demonstrated by Nature herself under our daily observation. The natural interpretation was, that these ligneous matters had sunk in this situation when the sea occupied it; that the deposit of mud had, in the course

* See "Journal of the Royal Geographical Society," vol. iv. p. 36.

of ages, thrown back the sea, instead of the ocean having risen above its former level: yet, possibly, the other conclusion may be right.

I had reason to know something of Major Staples' labours for the purpose of procuring fresh water at George-town, as the instrument with which he operated cost me between 50*l.* and 60*l.* sterling, as the books of M'Inroy, Parker and Co. would testify. The instrument was Ryan's patent borer: I obtained it from London; it was the first, and, for aught I know, the only one ever brought to the colony; but owing to other pursuits, I had only made some slight attempts at boring in George-town. Major Staples has the merit, after vast labour and perseverance, of effecting the important purpose of procuring fresh water on the saline coast and at the capital of these colonies.

Such, in fact, is the mutability of the coast, from alluvial deposits brought down by the rivers, that the mud-banks are continually shifting from one part to another; so that, up to our time, old Arowaks have been heard to discuss their tradition respecting the anterior non-existence of the whole peninsula of the Pomeroon.

The tides on this coast, in respect to height, times, and directions, are greatly influenced by the tropical currents, and the varied quantities of water brought down by the great rivers. I have observed, indeed, a series of changes on the Guiana coast, resulting from the tides; and necessarily so, having furnished the astronomical matter for the Demerara Almanack for a series of years, since 1805; the lowness of the land requiring an accurate anticipation of the highest tides. In short, so different are the banks and soundings of this coast, that our hydrographical charts indicate most inaccurately its present state.

Climate and Diseases of the Country, with hints respecting their Prevention and Treatment.

Guiana is the most favourably situated of any part of America, or the world perhaps, with respect to the winds and sea-breezes. It lies in the main track of the equinoctial currents; whilst hurricanes, so terrific and destructive amongst the West India Islands, are unknown here; the gentle equinoctial gales being very steady and uniform. And at Angostura, nearly three hundred miles inland, they commence scarcely an hour later than on the sea-coast.

An opinion is very prevalent, that the heat of climate renders Europeans unable to labour, or encounter much fatigue in these countries. This is a great mistake: for, on the contrary, it is a fact that those who take most exercise enjoy the best health, provided they live temperately. It is the excessive use of strong liquors that proves destructive to Europeans in hot climates, and which, together with the heat, renders them incompetent to sustain much fatigue, until they become accustomed to it. It is alleged, most erroneously, that strong liquors are necessary to counteract the debility arising from the heat. Except in great moderation, they have the contrary effect, and have ever been the chief cause of the mortality which formerly prevailed, and must ever prove dangerous to the habitual debauchee. The writer, although not the most temperate, can aver, that during an experience of twenty-five years in the warmer parts of South America, he ever enjoyed the best health when he used most exercise. In every part of the world, exercise and temperance are the greatest safeguards of health; but indolence is even more pernicious in hot climates than elsewhere.

The sackooru and casseri form the most wholesome, nutritive, and delicious drinks (made chiefly from mixtures of

cassada, maize, and sweet potatoes, slightly fermented). This kind of beverage might be substituted for malt and spirituous liquors with incalculable advantage. Those who use this sort of drink, owing to its substantial and restorative properties, as we ourselves experienced, lose the desire for strong liquors. This fact, which we had previously heard reported, was confirmed amongst the Macoosies, who make constant use of such beverage: they as constantly showed a disgust for spirituous liquors, whilst the Arowaks, Warrows, and those of the coast, had an insatiable desire for them.

It is well known that many families in this country are affected with scrofula, and a strong predisposition to pulmonary consumption. To such families or individuals the climate of Guiana would be the most eligible of any in the world, as affording an exemption from such complaints. Tubercular consumption is unknown on the coast, and extremely rare in the mountain regions, though not unfrequent on the llanos. The writer can say, that he has never met with an instance of genuine tubercular phthisis on the coast of Guiana, nor a single case of calculus, or stone in the bladder, generated there; which is not the case amongst the West India Islands; perhaps for this reason, that however favourable may be the sea-breeze in the day, there is every night a cool land-wind blowing from the central parts of the islands, towards the sea. The yellow fever appears less frequently, and the coast becomes more healthy as the woods are cleared off, and the soil drained.

Physicians often recommend to their consumptive patients a voyage to Montpellier, Naples, Rome, Madeira, &c.: had they a knowledge of the advantages offered by a Guiana climate, they would assuredly never think of sending patients to those places, all of which are far from being exempt from this disorder. I consider it indeed, a matter of

immense importance to those so afflicted,—to families predisposed to consumption, or affected with scrofula, the secret agent and origin of the most insidious and fatal diseases of this country.*

The climate, I may say, is not only prophylactic, but curative of this disorder (pulmonary consumption), of which I have known various instances: and one of the most remarkable and desperate cases occurred so long ago as 1806, in the harbour of Demerara, in the person of a Swede, who arrived in a vessel from Portsmouth. This case I have detailed in a more appropriate place.

In the interior parts of Guiana the purity of the air is such, that in the dry season the stars appear like brilliants in the deep azure sky at night, and we not unfrequently perceive planets in the day-time. I have often observed the planets Jupiter and Venus when the sun was 20 or 30 degrees above the horizon; in which case Venus appears through a telescope precisely like the moon in her first quarter.† At the same time, the splendour of the moon and the zodiacal light contribute to make the nights most pleasing, and to throw a charm over every object.

The testimony of the wood-cutters constantly assures us that wooded parts and inland forests are not found to be unhealthy either to Europeans or to others. These are facts which I can vouch for; and to show they are not contrary to reason, let it be considered that it is not the absolute degree of temperature which determines the salubrity of any climate, but the great and sudden changes from heat to cold, and from cold to heat, which chiefly

* That these are not hasty conclusions of the writer, may be seen by referring to the *Lancet* of May 8th, 1830.

† This must ever be some distance on either side of the planet's superior conjunction with the sun, the reason of which will appear evident to astronomers.

render any country unhealthy. Now, there is probably no country on the globe where the temperature is more uniform than in Guiana.

Instability of climate contributes more, perhaps, than any other cause to the production of epidemic diseases. The fatal Asiatic cholera, for instance, which has pervaded almost every part of the habitable globe, excepting Guiana, arose in that part of Asia which is subject to great changes of temperature,—at one time to the hot winds from sandy deserts,—at another, to the chilling blasts from the *Ghauts*, or from the Himalaya mountains, the highest in the world, and covered with eternal snows. In further illustration of the subject, let us contrast the steady climate of Guiana with that of Canada, where enormous changes are often experienced, and consider that the population of Quebec was (in 1834) decimated by spasmodic cholera.

The coast of Guiana, as before observed, has latterly been seldom visited by the yellow-fever.* In 1804 it prevailed with great mortality, chiefly amongst the sailors, who, in a state of intoxication, not unfrequently slept on the ground or on deck: they were mostly on the following day attacked with depression, dry skin, and the symptoms termed yellow fever, and in those days we actually knew of no means of averting the consequences.

It may not be irrelevant to add here a few directions to emigrants or others destined to tropical climates. Adynamical and malignant fevers may be easily arrested at the onset;—a fact, which, strange to say, is little known, and only practised imperfectly by some few Creoles and native inhabitants: it consists in procuring a perspiration, with as little delay as possible after the fever is found to be ap-

* This form of fever prevailed amongst the troops last year, (1839) and might perhaps be attributed to the same cause with that of deficiency in the crops, or want of labour to keep up the drainage.

proaching, by the use of vapour-baths, fomentations, enemas, and warm sudorific drinks,* (formed with haiowa-balli root, haimarada, &c.), not waiting for depletion or purgatives, but employing them secondarily as required.

The common or European practice is to administer calomel and purgatives, antimony, &c.; occasionally to bleed, and apply blisters; but such measures are seldom or never known to arrest the disease. The method by sweating appears, indeed, by far the most rational, when we consider that these disorders are brought on chiefly by colds and suppressed perspiration, after heats, atmospheric vicissitudes, and intoxication: the pores of the skin becoming closed, the blood is driven inwardly upon the viscera, and becomes partially stagnant. The natural method, then, is most obviously as promptly as possible to open the obstructed pores, to drive the blood to the surface, and to promote the secretions by which the vital fluid is depurated, and on which all the functions of life most immediately depend. This should be speedily attended to before fatal lesions or inflammations become fixed on the vitals. When these indications are acted on at the commencement, they prove as efficacious as they are simple and obvious.

It is melancholy to observe, however, that the few precious moments are suffered to elapse, very often waiting for the medical adviser, the medicaments to be prepared, or some useless affair to be attended to, whilst the principal and essential point is not thought of. By the Spaniards, too, a trifling preliminary course of antiphlogistics are employed, (*para refrescarse.*) This course, however, I consi-

* I have known old sailors use a method of their own with great success, that of taking very plentiful draughts of hot punch, a very powerful sudorific; and thus preserve themselves and their comrades, on the invasion of yellow-fever.

der as less hurtful than that of giving strong purgatives at the beginning ; for by the latter, the natural effort or elimination by the skin is counteracted,—as purgatives tend to impede the secretions by the skin, and thus to retain any irritative acrimony : hence we may see good reasons (though not now recognized) why Hippocrates and the wisest of the ancients forbade the use of cathartics at the beginning of fevers or inflammations,—which are one and identical, differing only in degree and the nature of the parts primarily affected. It should be observed, too, that a dry skin is a constant symptom attendant on the commencement of all the pernicious fevers and dysenteries in the tropics, and doubtless in every climate ; whilst these malignant fevers, like cholera, are not unfrequently ushered in with spontaneous purging : this should afford a hint to the followers of the cathartic plan. The same means in effect are resorted to with equal success against the dangerous fevers, dysenteries, &c. by the aborigines of North America ; that of *vapour-baths*, along with the copious use of alexipharmic tisans, or infusions of sudorific herbs ; and this is the proper way of arresting typhus and all malignant fevers and dysenteries.* This supposes that we take the fever at the onset, as ever should be done if possible : and the same, followed up at later periods, together with bleeding and evacuants, and the use of stimulant frictions, as the case may require.

The transpiration is copious in hot countries ; indeed, it forms the best index to the state of health ; and those who know this, are enabled to guard against the more common

* To this end nature offers us a multitude of plants in every country : amongst the most valuable here are sage, balm, hyssop, mentha, agrimony : and they are most efficient when combined or infused together, and drunk warm in bed. Rheumatism, as well as dysentery, typhus &c., are thus readily conquered.

cause of disease in hot countries, suppressed perspiration.* Unfortunately, however, very few are aware of this fact, and are fearful of using exercise, in the heat of the day especially; they allow the mainspring of health to flag, and the secretions to be suppressed; they become pale and debilitated, and obnoxious to fever. They resort to purgatives,—salts, jalap, and calomel. The latter is found the more useful, (and that in repeated small doses,) because it tends to restore the secretions, but is feeble and insufficient, unless assisted in its action by sudorific baths and diluting drinks. The true remedial means are generally disregarded, —the cathartic system being mostly mistaken for it.

By the Dutch physicians in the colonies, diseases were mostly ascribed to the bile and *slime*. In Europe we have the more elegant and euphonius designation, *affections of the gastric and chylo-poietic organs*; both, however, employing the same aperitive indications, directed against the supposed offending humours, scybali, &c., in the alimentary canal.

The necessity of preserving the perspiration is more evident in warm climates than in cold; for, in the latter, the insensible perspiration is usually sufficient for the preser-

* Many mariners have learnt this by long experience: I have just conversed with one who is very intelligent and worthy of confidence, (Mr. R. Featherstone of Wiveliscombe,) who has made sixteen voyages to the West Indies and Demerara, twelve in the capacity of carpenter, and four as chief mate. He drinks with moderation, uses much exercise, and perspires very freely in the warm climates: although of a full habit, he has never been attacked with fever within the tropics, but enjoys the best health, and observes that he usually grows stouter whilst there, and especially at Demerara. This I have noticed, because it tends to exemplify and confirm my own views and experience. Mr. Featherstone is now about to sail for America, and on his return will be ready to answer any further interrogatories. But many old and experienced masters of vessels will be found to bear similar testimony.

vation of health : but even here it has not escaped the notice of the wisest physicians, that the cutaneous discharge is the most immediately essential to life, and to the due regulation of the healthy functions : in short, we are taught by daily observation in every country, that by far the greater number of all our ailments arise from colds and suppressed perspiration ; and it appears to me very surprising that a matter of such vital importance should be so lightly regarded.*

I have long been of opinion that the exemption from *phthisis* on the coast of Guiana is partly owing to the gaseous emanations from the soil ; but I have reason to believe that one chief cause is referable to the free perspiration experienced here, together with the almost total absence of those chilling blasts which are common in other tropical regions. And the means which are found most efficient in the cure of this distemper confirm me in this opinion ; that is, by the use of diaphoretic, alterative remedies, such especially as the composition of sarsa, bark of guaiacum, waik-root, &c., together with small doses of mercury, antimony, opium, and the use of vapour-baths,—means which most steadily promote transpiration, urine, and all the secretions, which eliminate the causes of dis-

* The vapour-bath affords one of the most effectual means of opening the pores of the skin and readily averting the evils which most commonly assail us. Many ingenious contrivances for this purpose have been offered to the public, and no family ought to be without one of them ; but to persons on ship-board, or those going out to hot, to cold, or any other climate, they are truly the most essential and invaluable safeguards. I have examined many of them, and do not hesitate to say that the most portable and convenient for the application of vapour, hot air, and for any fumigation, is one recently invented, and sold with familiar directions in Wardour-street. This simple apparatus I have found so exceedingly advantageous and beneficial in my own family, that nothing could induce me to dispense with its use.

ease from the habit and purify the blood. Divers instances of the cure of syphilis, cachexies (foul disorders), and even confirmed consumption, at Angostura and the missions, seem to me fully to justify this conclusion (see *Med. Bot. Trans.*; and the *Lancet*, 1829, and 30-32; *Medical and Surg. Journal*, vol. iii. and v.)

On this point I may further remark, that numberless disorders may be, at their commencement especially, most speedily removed by the means here indicated; and the *rationale*, or reasons for which, will appear sufficiently evident to those who are aware that most of our ailments, in every climate, arise from colds and suppressed perspiration, together, or coincident with, a morbid state of the fluids.

When matter, from extensive ulceration and abscess (as in the lungs) has not a free discharge, it becomes absorbed into the mass of circulating fluids, and produces an irritative fever, termed hectic. By repose, and warmth of the bed at night, the patient sweats, by which the fever abates. The sweating is an effort of nature to relieve the system of the offending humour; which is evident from this, that if we collect the clammy transudation, we find it to possess most of the properties of pus. This view of the subject, however, is disregarded; and so perverse is our pathology, that, instead of assisting, practitioners seek to suppress the salutary discharge, whilst in general, they appear to entertain no idea of the means of altering the habit, healing the ulcers, and supporting the strength and vital powers. The means above noticed have been found most efficient in healing ulcers in all parts of the body, internal and external.

Views like the foregoing, however, which are chiefly built on the experience of ages, have long since been exploded as antiquated; and with the explosion, common-sense has been driven from the field: no pathology is now recognised besides the unmeaning and senseless mummery, about *irri-*

tation, sympathy, brain affection, thoracic affection, abdominal affection, increased action, disposition to inflame, &c., as though the different parts of the body were endowed with volition, and, without assignable cause, with the power of taking on any mischievous action at will.

Proposals for Colonization, with Notices of the Indians, and an Allusion to some Errors of the Baron Humboldt.

✓ Guiana, I may observe, is watered by innumerable rivers; but the great highways to the interior, from the British settlements, are mainly by the Essequibo, Demerara, and Berbice. These afford the greatest facilities for navigation with large schooners or steam-boats, to the distance of from fifty to eighty miles inland; that is, to the first ridge of land (at the falls or rapids of these rivers), which forms, as it were, a wall or parapet to the more elevated lands, extending to the Cordillera of the Parime and Macoosy mountains. At these falls the primitive soil commences, although there are fertile lands below this ridge.* The banks between the series of the rapids are very high, consisting of pure clay, as white as snow. A fruitful soil is the grand object for colonization. It would be but a waste of words to speak of mines, in a country which has never been explored, although the *naked hills* of the savannah country,

* All this part abounds with excellent timber for houses and ship-building, especially the banya, or iron-wood, so called, green-heart (*Chloroxylon*) and sirubally (*Laurineæ*), the yaki-pot (*Lecythis ollaria*), and hitchia, which is identified in the *Malpighia altissima* of Aublet, according to Mr. Bach, a gentleman well known in the colonies as a most ingenious and intelligent botanist. Here, too, are multitudes of woods suitable for dyeing, for cabinet-work, and various uses in the arts, as well as gums, resins, barks, roots, and divers medicinal substances of the greatest value, and totally unknown to Europe. For a notice of timber-trees, see Appendix.

with red ferruginous earths and quartzose pebbles, are similar to those of the gold and diamond districts of Brazil.

The Essequibo rises in the south-west part of Guiana, and after traversing a salubrious portion of this extended country, falls into the sea in lat. 7 degrees north. The fertile banks of this river and its tributary streams are covered with the richest vegetation, with the finest timber for ship-building and cabinet work, with a multitude of plants bearing delicious fruits and alimentary substances; yet, for the most part, this country is destitute of inhabitants: in fact, the choicest tracks of this secluded territory remain in a state of nature, untrodden by man, either savage or civilized; and what is stated here of British Guiana is mostly applicable to other parts of this extensive country.

The course of the lower Essequibo lies nearly in the direction of the longitude; but, on passing the mountain Taquarie (so called, from a huge pile of rocks in form of a water-jar, latitude $4^{\circ} 50'$), we find its course, upwards, bending a long way to the eastward, and that just at the part where, on the more recent maps, it is carried far in the contrary direction, westward. From this error, the confluence of the Essequibo and Reponony is laid down far to the westward of its true position.

In going up the Essequibo, we have to encounter three series of rapids, occasioned by rocky dykes. It is these ledges alone which can offer any plausible objection to the inland settlements. The highest falls, however, which I saw in the course of this river, did not exceed twelve or fifteen feet. It must be observed, too, that these falls or cataracts exist, as such, only in the dry season, when the river is low; for, in the wet season, the river rises so high that the falls are totally obliterated, or lost in the flood. We passed up in the former season and returned in the latter, and keeping the main channel, ran down the falls

without having occasion to stop for a moment.* This period of the year would of course afford every facility for shipping produce, even without any improvement of the navigation of the river, or regard to what I have now to add. Even in the dry season we were always able to avoid the falls, by taking some of the numerous lateral channels, called Ittabas; and nothing is more certain than that the numerous gentle streams of black and deep water,† which fall into the main river, would greatly facilitate the intermediate communication.

As to the craft to be employed, the coreals and canoes afford at present the most convenient and rapid conveyance, as passage-boats; and they are managed by the natives and coloured people of Essequibo with great dexterity. The natural passes, however, which I have alluded to, might be rendered safe and easy, especially for flat-bottomed boats, such as are used on the Mississippi and other rivers of the northern continent. The falls, then, cannot be regarded as

* In 1810, by an appointment of the Colonial Government, I accompanied an expedition amongst the interior tribes and to the Portuguese territory. We went up in November, and returned in July following. On our return, I laid before Government a rough sketch of the river and the country which we traversed, with a brief description of the same, which has, I observe, been employed by some late writers, without any reference to authorities; but this is of no importance.

† These black waters traverse a deep and fertile mould, and evidently owe their colour to carbonaceous or decayed vegetable matter. The water of the western branch of the Essequibo (Reponony), which runs through a savannah country, is of a light colour; that of the southern branch, or Essequibo proper, appears almost black, which shows that it traverses a rich soil of decayed vegetable mould. This distinction I have found to obtain universally, and to furnish the most certain indication of the nature of the soil in Guiana. The Caroonny, which rises amongst the Parime mountains, flowing northward to the Orinoko, appears of a jet black; yet in a glass tumbler it is as clear as crystal. The Spaniards say it runs through beds of sarsaparilla; and it is, therefore, regarded by some as highly medicinal.

material impediments to objects so important ; both because they are actually obliterated in the wet season, and because they may at all times be avoided, by means of the lateral channels. The Indians and coloured people go a long way up this river every year, in the dry season, for turtle and fish, which they dry upon the great rocks at the magnificent amphitheatre of cataracts, or falls of Quasinky and Warapoota. They also cut timber, which is floated down when the river is high, and this accounts for their dexterity amongst the rapids.

Were the natural avenues of Guiana, however, far less than they are, we could in such a country, have nothing to fear, especially since the vast developement of modern science in the construction of canals, roads, and rail-ways ; and when we recollect that, in North America, even the Alleghany mountains are not regarded as obstacles to genius and labour in such constructions, we cannot despair of British genius in the South.

The traveller in this temperate region has no cold or excesssve heat to dread : his house for the night is built by the Indians in a few minutes ; that is to say, a shed, covered with a few leaves of the trooly or other palm, which is sufficient in a mild climate never invaded by hurricanes.

Doubtless, many of the enlightened planters and merchants are sensible of the importance of the cultivation of the interior, and would come forward to furnish the means of internal communication, by roads and canals, and open the navigation of the rivers Essequibo, Demerara, Berbice, and Courantine, for the use of flat-bottomed boats and steam-vessels.

For the commencement, it might be eligible to form a settlement at or near the first falls of the Essequibo or Demerara, sixty or seventy miles up the river, where an excellent soil will be found for raising Indian corn, rice,

millet, plantains, yams, sweet potatoes, cassada, eddoes, and various culinary plants, of which an abundant supply would soon be obtained. In the mean time, the planting of tobacco, coffee, cocoa, cotton, and sugar, may be commenced, as also grapes, figs, dates, &c. as desired.

A position established here would afford the best facilities for cutting a road past the falls, or for rendering these navigable for boats and steam-vessels. In the mean time, surveys should be made for eligible spots for cultivation, and for extending the settlement further inland.

An object of the utmost importance at all times, but imperative and indispensable in the present state of things, is the introduction of agricultural machinery and cattle labour: it is strange, indeed, that this should have been so little thought of in the colonies of Guiana. It must be observed, however, in justice to one ingenious and philanthropic individual, (Mr. Josiah Booker,*), that the facility of employing that noble instrument, the plough—that source of wealth and national prosperity—has been most successfully demonstrated on the east coast of Demerara: and it must no doubt be equally so in every part of the colonies.

If anything can keep up the coast cultivation in Guiana, it will be the use of the plough. The writer was not aware of the above fact or of the complete success of the experiment by the gentleman just named, till lately; and he confesses it modifies very much the opinion he had entertained on the practicability of continuing the cultivation on the Guiana coast, especially on the west coast, for the east is partly worn out by a long succession of crops. The same means of culture, however, (by employment of oxen,) would also tend to revive the fertility of an exhausted soil. The plough, indeed, would afford immense advantages on the

* Firm of George Booker and Co., Liverpool.

coast or in the interior ; although perhaps less essential in the latter, because of the mellowness of the soil.

The emigrants might be composed of the surplus population of this, or any other country, desirous of availing themselves of this new and inviting asylum, offering, as it does, by its productiveness and natural capabilities, more scope for industry than any other part of the American continent. It would withal afford a full and profitable employment to ship and house carpenters, coopers, painters, glaziers, cabinetmakers, blacksmiths, brickmakers, and bricklayers. Most of the bricks used there are brought from England, whilst the country abounds with the finest clay in the world, and which, from its whiteness and purity in the upper rivers, is mistaken for chalk. It would doubtless form, with the white sands or quartz crystals, the finest species of porcelain.

It is true that wages, or the price of labour, may not be so high in Guiana as in Canada or Van Dieman's Land ; but this is more than compensated by the cheapness of provisions and all the necessaries of life : it should be considered, that these ever regulate the price of labour in all countries, and it is often asserted that the low price of labour indicates an abundance of provisions.

Many of the emigrants would doubtless prefer taking up their residence on the sugar estates of the coast ; and those of sober habits might here render themselves highly useful, not only by their own labour, but more especially as affording examples of industry to the black people, who, for want of such examples, entertain an idea that field labour is degrading and inconsistent with freedom. This point I should consider as worthy of special attention, if it be intended to keep up or prolong the present cultivation of the colonies.*

* This is a matter, I presume, now very generally understood and acknowledged ; especially so, I am told, by Messrs. Rose, Croal, Bean.

As to any protecting force, the same which now exists might, with a small addition, be thought advisable. But the great secret of defence for such a colony is, to maintain a good understanding with the natives, and to treat them as *men*. They are, in general, docile, tractable, and easily governed; and Europeans, indeed, have but too often taken undue advantage of their good-nature. They would render every requisite assistance to the new settlers in clearing the lands, fishing, and hunting.*

Why, moreover, should these people, because they disregard money, be considered unworthy of wholesome instruction, or of the lights of Revelation, which has never been offered to them except by the pious Catholic missionaries? It would be worthy the liberal policy of this great nation, to shed the lustre of the Gospel and of civilization upon those benighted people, who in a country ranked by nature among the richest on earth, are rendered absolutely miserable by the grossest delusions, and by idolatry the most abominable; believing themselves ever under the dominion of the devil, or haunted by the Kanaima,—demons, poisoners, or night murderers, whose malignant power they invoke or seek to evade by incantations and exorcisms, through the pretended acts of impostors,—priest physicians, called Peiis or Piaches. Such is the case, more especially, with the Ackawai and Macoosy tribes; but it is common to all those of the interior, unless we except the Caribees.†

Rainy, Booker, Bell, and many of the more enlightened and liberal-minded planters, merchants, and others, connected with the colonies.

* See Hillhouse's "Indian Notices" for much correct information on these subjects.

† To express the Great Spirit, or God, they use the term Mackanaima, that is to say, the ruler or Master of Kanaima. The Caribees, Arowaks, and the Indians in general, acknowledge indeed a Supreme Being, but they say he never troubles himself with the affairs of men.

The southern aborigines of America have not shown those savage traits of ferocity which have marked the more northern. They partake more of the dispositions of the Hindoos or the Chinese, whom they greatly resemble. We hear nothing of human sacrifices, like those of the ancient heathens, and as still practised amongst the South Sea Islanders and certain savage hordes of Africa.

It must, indeed, as before remarked, be an object gratifying to every liberal mind, to see the natives instructed in useful pursuits, and brought into moral and industrious habits. Heretofore it has received no adequate attention from Government; but strange to say, their natural disposition for strong liquors has been encouraged, and multitudes have been destroyed by the deleterious *new rum* so liberally placed at the disposal of the post-holders and *protectors of Indians* so termed. Through a system totally different, the most happy results are realized amongst the Portuguese Indians, as we long ago observed on the Branco;* and by the Spanish Indians, as may be seen in those refugees who fled from the revolutionary troubles in the Orinoko, sought protection under the British Government, and settled in Pomeroon and Moruca. These people we find to be intelligent, peaceable, industrious, contented, and happy, and in their moral conduct not excelled by any other caste. It is rare, indeed, that any acts of aggression are committed by them.

The primitive Indians of this part mostly subsist on fish and crabs, in the capture of which they are as dextrous, perhaps, as were ever the Ichthyophagi of the ancient continent; and the influence which habit or mode of life has upon physical conformation, is exemplified in the broad, spreading foot of the Warrow, which enables him to walk on the muddy shores, where he finds his accustomed

* Expedition to Interior Guiana in 1810-11.

aliment. They have also the zurumo, or sago bread, made from the pith and fruit of the Eta palm, which grows in the swamps of the coast. Their language is as simple as their mode of living, and contains but a very small number of words.

The assistance of these Indians (Guaraunos of the Spaniards) would likewise be important. They inhabit the coast between the Rio Moroka, or Pomeroon, and the Orinoko. They are great fishermen, and they fabricate most of the canoes and coreals used in Guiana. The famous Spanish launches are made by them. The Warrows were employed with great advantage in the military works of Post Moroka, upwards of twenty years ago, when the writer had the medical charge of the troops stationed at this fort.*

The Macoosies are a numerous tribe, and more inclined to industry than most others; they would contribute vastly to the aid of the colonists.

*Extracts from various Authors in confirmation of the
preceding Views.*

I may now take a few extracts from some of the more authentic travels in Guiana respecting the natural productions and eligibility for colonization, and which I have the greatest satisfaction in referring to as confirming my views in the preceding pages.

M. Humboldt, who visited the western part of Guiana by

* This part, called the wild coast, or *Caribæana*, is intersected by numberless creeks and rivulets, forming a singular archipelago, or labyrinth of small islands. I have heard the old Dutch planters say, that these lands below Moroka, belonged to the crown of Sweden, but on what treaty or authority I never learnt.

the Orinoko, observes: "I saw vessels arrive on the coasts of Terra Firma laden with the fruit of the *Caryocar tomentosum*, *Pekea tuberculosa* of Aublet. These trees reach 100 feet in height, and display, by the beauty of their corolla and the multitude of their stamens, a magnificent appearance. I should tire the reader by continuing the enumeration of the vegetable wonders which these vast forests contain."

Of the cacao, or chocolate nut, he says: "The landing-place of Pimichin is surrounded by a vast plantation of cacao trees, which are very vigorous, and loaded with flowers and fruit at all seasons of the year. The light lands of the Taumni and Pimichin are extremely productive. When we reflect that the cacao tree is a native of these forests of the Parime, south of six degrees of north latitude, and that the humid climate of the upper Orinoko far better suits this valuable tree than the air of the provinces of Caraccas and Barcelona, which becomes every year drier, we saw with regret this fine part of the globe in the hands of monks, who encourage no kind of cultivation. The mission of the Observantins alone could furnish annually for exportation fifty thousand *fanegas* of cacao, the value of which, in Europe, would amount to more than six millions of francs." (Personal Narrative, vol. v. p. 282.) He also exclaims, (vol. iv. p. 567,) "Strange policy that, which teaches mother-countries to leave those regions uncultivated where Nature has deposited all the germs of fertility."

The Jesuit missionary M. Grillet, who long ago travelled and resided in the interior parts of Guiana, makes the following remarks: "Guiana is a great country, and extends in latitude, from the equinoctial line to the tenth (ninth) degree on the side of the Arctic pole; from the river of the Amazons to the Orinoko; which contains nearly 400 leagues on the seacoasts, with an immense stretch into the

countries that border upon Brazil on the south, and New Andalusia on the west. This part of the continent is watered with abundance of rivers, some of which will carry great vessels up a considerable way beyond their mouths. The Indians bring up all sorts of tame fowl as well as wild, and other game, which is there in great plenty, as also abundance of both sea and freshwater fish. They load ships with a certain fish they catch in the rivers with a sort of harpoon: these are carried to the islands; and one may say, this and the sea-tortoise are the cod-fish of the continent and the Antigo Islands.

“ Their *rocou* is a red dye, and valuable when it is natural, such as the Indians sell us before it has been falsified by foreigners, who carry it into Europe. There are likewise to be had amongst them divers species of gums, woods, and roots, proper for physic, which are good commodities in France; as well as several sorts of wood for dyeing, and for the making of cabinets and inlaid works, amongst which is the letter-wood called by the French, *bois de la Chine*, and which grows in no other place in the world but on this part of the continent. The natives cut and sell it in great burthens to the ships, so that a hundred-weight of it comes to but a crown; whereas that quantity was a long time sold for 100 crowns, and for never less than 150 livres. I omit a great many other things which this country produces; and one may say, this large compass of ground has moreover this advantage over the islands of America, that there is no fear of tiring it. The island of St. Christopher, where the land is become almost barren by being overburdened with successive crops, yet does not hinder them from raising every year a prodigious quantity of sugar, besides ginger, indigo, cassia, and other commodities, that are cultivated here.

“ This country of Guiana is diversified with hills, plains,

and meadows. The land is everywhere so fertile, that one man may easily get, with his own hands, a livelihood for twenty people, the cultivation of it is so very easy. The fruits of it are excellent and very plentiful; various sorts of corn grow there all the year round, without distinction of seasons, and that in a very little time; and there being no winter, the trees are alternately covered with blossoms and fruit, and always with leaves. The air is very good, and the climate very temperate, though it be between the tropics, for the heat is continually mitigated by a fresh east wind, which blows all the year, except in the night, when the breezes come from the land. The waters are excellent, and keep good throughout the longest voyages, as has been often experienced in Europe."

The Jesuit missionary Christopher D'Acugna, in his *Discovery of the River of Amazons*, concludes:—"Thus, in short, I have given a relation of an ample discovery of this great river, which, though it possesses so great treasures, yet excludes no nation in the world from them; but, on the contrary, invites all sorts of people to reap the profits of the riches with which it so abounds. It offers to the poor a plentiful maintenance; to the labourer, the liberal recompense of his toil; to the merchant, a profitable trade; to the rich, an improvement of their wealth; to gentlemen, honourable employments," &c.

It is evident that M. Buffon had acquired a very correct idea of the Guiana climate, on which he makes the following just remark in his *Natural History*:—"In the new continent, the temperature of the different climates is more uniform than in the old. For this there are several causes: the torrid zone in America is by no means so hot as in Africa. The east wind, which blows constantly between the tropics, does not reach Brazil, the land of the Amazons, or Guiana, without traversing a vast sea, by

which it acquires a degree of coolness. It is for this reason, together with the rivers and forests, that these parts of South America are so remarkably temperate."

Malte Brun, in his *Geography* (on Guiana), vol. v. p. 555, says:—"The cacao tree grows spontaneously on the east of the Oyapok;* coffee, pepper, indigo, and vanilla, are indigenous to the soil; manioc and cassada are considered the best alimentary plants; the potatoe, the igname, two kinds of millet, and the tayove, are also very nutritive.

"Guiana is famed for its medicinal plants. It supplies Europe with quassia, or the wood of Surinam. The *Dolichos pruriens*, the *Palma Christi*, a species of ipecacuanha, gentian, the *Arabicus costus*, the *copaifera balsam*, and many others, are mentioned in the memoirs of Bajon and Aublet. Leblond, a celebrated traveller and botanist, tells

* I know that by the English, Dutch, and all the European colonists, this tree is said to grow wild in divers parts of Guiana; and the same is asserted by Aublet, by Humboldt, Richard, and others. I cannot deny the fact, but doubt somewhat, having never met with it in the distant forests; and I know that it is often confounded with the *Cana-heri* (*Pacheri aquatica* of Aublet, *Carolinea princeps* of Willd.), which is called *wild chocolate* by the colonists. The fruit of this superb vegetable resembles that of cacao very accurately, and it has been employed in the same manner: in its large and beautiful flowers, however, it differs exceedingly from *Theobroma cacao*. What tends to increase my doubts as to the indigenous growth of this tree in Guiana is, that all the natives, so far as I know, call it by the Spanish name, *cacao*, derived from the Mexican (?), and they appear to have no name of their own for it. But, whether natural or not, the soil of the mountain regions is so congenial, it suffices to set the plants in the ground, when they will maintain themselves and reproduce abundantly, as I have witnessed in the missions of Carony.

The flora of Demerara has been but slightly investigated, with the exception of Meyer's contributions, and those of that philosophical botanist Dr. Hooker,—aided by the laudable zeal and intelligence of his worthy pupil Mr. Charles Parker, of Liverpool.

us that the cinchona does not grow in Guiana : as this plant has generally been observed in mountainous districts, the low plains on the confines may be unfavourable to its growth."

This may be a just remark ; but the mountainous regions of Guiana have never been explored, nor even ascended by any one except the writer, so far as he knows ; and it would so appear from the statement at page 552, that " the highest mountains are not more than 1800 feet above the level of the sea ;" whereas the mountain Mackerapan, on the Essequibo, has nearly thrice this elevation.

The Hon. P. H. de Groot, one of the oldest and most respectable inhabitants of Essequibo, and formerly president of the colonial legislature, who has been many times up the river (into the region proposed for colonizing) has uniformly declared it to be one of the most interesting and fertile countries on the globe, and the most desirable for occupation.

I may remark, too, that an enlightened friend,* who has travelled so far as the Parime, many years since mentioned to me the intermediate or mountainous region in the very pleasing and classical terms for which he so much excels.

Piso, speaking of Guiana, observes :—" Multæ insuper plantæ, resinæ, et ligna, tam mercatura quam medicina dicata, luxuriant, quorum præcipua, enumerasse sufficiet. Denique fluviatiles pisces tam multi et tam præstantes apparent (licet à nostratibus multum diversi) ut vix ulla, regio in terris magis illis abundare possit."—p. 170.

We have, indeed, similar reports from all the more intelligent persons who have travelled in Guiana, respecting the soil and productions of the interior ; and more recently, Mr. Hilhouse, after having twice or thrice visited the region

* Charles Waterton, Esq., author of " Wanderings in Guiana."

of the falls, adduces, amongst others, the following very strong arguments in favour of the inland cultivation.

“ The climate of the region inhabited by the Indians is much more salubrious than that of the coast : though approaching nearer to the Line, its superior elevation causes a decrease of temperature ; and the surface of the earth is always kept cool, from the thick shade of the forest with which it is universally covered.

“ It is a common observation, that the air of the rivers is unhealthy ; but this only applies to that part of them which runs through the swamp land and level of the sea-coast : here the exhalations and vapours accumulate, and the sea-breeze is not sufficiently constant or powerful to dissipate them. Throughout the whole extent of the salt or brackish water, fever and ague predominate ; but, beyond the influx of the tide,* the banks of the rivers are so proverbially healthy, that, were the population ten times more numerous than it is, there would be little employment for a physician. As we approach the high sand-hills of the interior, the natural drainage is so perfect, and the torrent of fresh water supplied by the creeks forms so strong a current, that all impurities are quickly drained from the valleys, and the surplus water is instantly absorbed by the sands. Behind the pegass lands (near the coast) come *high ridges* of sand, interspersed with valleys, in which is a slight admixture of clay. These *sand-reefs* present many fertile spots.

“ To the south of this belt the rocky region commences, consisting of elevated ridges and detached conical hills, resting on bases of sand, stone, granite, and siliceous crystals, containing a great variety of ochres, iron ores, mica, crystals, indications of the precious metals, &c. The rocky region is possessed by the Ackaways and Carabisce, interspersed with small settlements of Macusi and Paramuna.

* This extends to the falls.

“From this topographical review, it is plain that the coast lands are as much the province of slave labour as the hills of the interior for colonization by free colonists.

“The only land that can be devoted to this purpose is occupied by the Arowaks and Ackaways, who occupy the country between the rapids and high mountains of the interior. This cannot be taken possession of, according to the old Dutch plan, without exterminating the Indians. But as we are bound to suppose that the British Government would not knowingly commit such an act of cruelty and injustice, it follows that the benefits of civilization should be extended to the Indians in return for the occupation of their lands.

“By the evidence of the old Dutch proprietors, the upper rivers were the regions in most general cultivation; and it is a fact that the first settlements and old Dutch estates were established and principally worked by the labour of the Indians. The exportable produce of that period certainly bears no proportion to the amount now shipped; but it was infinitely superior when compared with the small extent of capital employed. In fact, the old settlers had no capital. They sat down in the centre of the Indian population, attracted by the airy site of the hills, the abundance of fish and pure water, and the quantities of game. Their cultivation was carried on, either by free Indians or Indian slaves.”

At p. 71 of his *Indian Notices*, Mr. Hilhouse further alludes to the probable advantages resulting from the colonization and cultivation of the interior, and adds, that “the increased supply of animal food would add to the comforts of the whole population, whilst it diminished the expenses of the garrison; and Demerara would become the great cattle-market for all the West India Islands.

“Upon the whole,” concludes Mr. H., “there is no

doubt that, if the hand of cultivation reached to the hills of the interior, and a few artificial improvements were added to the advantages of local situation, the climate of the Indians would be the most healthy and agreeable of any within the tropics; with fish, flesh, fowl, and vegetables in abundance, pure water, no fevers, and no mosquitoes." (See the *Indian Notices*—Demerara, 1825.*)

These observations of Mr. Hilhouse are generally correct; and had his *Indian Notices* been at hand, I should have quoted him in a former hasty essay on this subject; but the book which he so kindly presented me in Demerara was lent out, and in fact lost till lately; and this must be my apology for having apparently slighted the valuable testimony of his experience.

I must not omit, however, to notice one small mistake of my friend, in placing the head of the river Masserony in the geographical position of the Portuguese fort of St. Joaquim on the Rio Branco; and I may remind him that the Worariquera and Branco run here fifty or sixty leagues in the opposite course, upon the southern slopes, towards the Rio Negro and the Amazon; but this was out of the limits of his tour, and we must occasionally allow a *degree of latitude*, or even degrees, for errors in reckoning. He will, of course, take this in good part, as it is intended; for to conceal or defend glaring errors in our friends, is to prove ourselves false friends, and enemies to truth. I am not unaware that Mr. Hilhouse, "with all his might," opposed my proposition for colonizing Guiana; but I persuade myself, after noticing the above extracts, that he could not have been in earnest: and although he were, no harm was done or intended, I presume; on the contrary, I am dis-

* See also the "History of the British Colonies, by R. Montgomery Martin, Esq.," vol. ii., in which will be found the fullest and most authentic details respecting Guiana and the West India Islands.

posed to regard it as an honour to have obtained some attention from men of talent.

I may here subjoin a few words from a report presented to the Governor on my return from the Interior in 1811, some part of which was read before the Royal Geographical Society, by the learned and able secretary, Capt. Machonochie : it will serve to show that my present views have not been hastily adopted.

On proceeding up the Essequibo, we meet with three great chains of cataracts or rapids : the first chain commences at Aretaka (20 leagues from the mouth of the river). The bed of the river, in the dry season, discovers vast quantities of vitrified, stony, and various mineral substances, and appears to have been the seat of volcanic fires at remote periods of time. These volcanic products are chiefly met with among the falls, incumbent on beds of granite, where the soil and lighter materials have been washed away. The principal component parts of the interior mountains are granite and its various modifications, which show them to be of primitive formation, whilst the extensive ranges towards the coast are of a less elevation, and are chiefly composed of indurated clays with sand and gravel, and may hence be regarded as belonging to the secondary order.

The soil of the interior and mountainous parts of Guiana consists of a strong and fertile loam, being a due mixture of clay, sand, and vegetable mould, with little calcareous earth ; it contains much ferruginous matter, which gives it a yellow or reddish tinge, and, contrary to what has been asserted of countries within the torrid zone, there are evidently vast quantities of iron ore amongst the mountains of Guiana.

The Indians (besides some cotton and sugar-canes, which thrive without care) cultivate cassada, maize, plantains, yams, eddoes, sweet potatoes, &c. Notwithstanding the

diversity of the animal kind, with which their rivers and forests abound, they subsist mostly on the produce of their fields, which are small indeed, and require but little labour; but they yield abundant returns. The cotton is spun by the women, and forms one of the principal articles of traffic amongst the inland tribes. The mountain regions, indeed, are most congenial to vegetation in general, and extremely well adapted to the produce of sugar, coffee, cotton, cocoa, &c.

The following will serve to give some idea of the lands further to the westward, in the region of the Macoosy mountains, west side of Reponony:—Passed over a barren salt savannah to the mountains; ascended a peak which is nearly isolated (of the range of Parime); it was very steep and rugged, and difficult to climb: found here, on the summit, five large houses, and about twenty men, besides women and children; all Macoosies, stout lusty people. They saluted us in their manner, by snapping their fingers in our faces, and made us welcome with abundance of cassada, yams, plantains, &c., and a sweet drink made of maize, red yams, and juice of the sugar-cane fermented, called Awasecooro,—a very agreeable and nourishing beverage. The top of the mountain appeared sterile, covered with large rocks. The cassada, corn, yams, plantains, &c., are produced on the sides of the mountain, and thrive astonishingly, notwithstanding the sterile appearance of the soil, which is composed chiefly of reddish indurated clay and gravel, with very little appearance of mould or decayed vegetable matter. This mountain is called Etaka, in latitude about $3^{\circ} 40' N.$ and in longitude $58\frac{1}{2}^{\circ} W.$ It seems extraordinary that *plantains*, which on the coast region will produce only on a *pegass* soil, should thrive so well here. From this spot we could see far along the Cordillera of Parime, Mackerapan, as also the groups of Conoko to the southward, which we afterwards ascended: and, at the same

time, the two great systems of rivers which drain the northern and southern slopes by the Essequibo and the Branco: the source of the Perara, the Maou, the lake of Amuku, &c were visible here. We found on the plain near Yamoory's some very singular plants, and especially an arboreous cactus, (nopal or prickly pear); one of the largest I have ever seen of these succulent vegetables, the trunk of which measured upwards of four feet in circumference. Pine-apples, the most delicious, are so plentiful in this neighbourhood, as to give name to a mountain, and the Macoosy village of *Annai*, or *An-ni-eh*.

On the 20th we descended the mountain on the opposite (western) side to Capt. Sacooro's. This side has an easy slope, and is covered with trees and an abundant vegetation. Near the plain we passed along a deep ravine, and a stream of water, cool and crystalline, overshadowed with trees and bush ropes (large vines). Passed some trees loaded with fine fruit, called *erong*; several fields of cassada, maize, &c., of luxuriant growth; and we remarked here a few sugar-canes, and cotton-trees, the largest we had ever seen, loaded with pure white and blown cotton.

Thus we shall see, that not only in respect to numberless products useful in medicine and the arts, but likewise numerous fruits and nutritive vegetables, Europe has yet to become acquainted with these fruitful regions of South America.

In conclusion, I may quote a few words on Emancipation, from the pamphlet I published prior to the great enactment, and make a brief remark thereon. "I have ever, therefore, considered it a fundamental truth that all men are naturally entitled to the enjoyment of equal rights; and this truth is even most generously acknowledged by one of the noblest of British laws, that the slave who touches the soil of England is free. And therefore, although such

principles are opposed to my own pecuniary interest, I truly wish to see all vestiges of slavery swept from the earth; and I know that there are very many amongst my fellow-colonists, more deeply interested than myself, who would be heartily glad to see this safely effected.

“ That the most unmerited calumnies have been heaped upon the planters, is true : but where undue power is delegated, men are but too prone to abuse it, and the brutal passions will, at times, predominate over better feelings. Witness, for example, the military punishments, which exhibit instances of cruelty unprecedented and altogether unknown in the colonies. But enormities practised at home cannot justify similar ones abroad. Government ought long ago indeed, to have abolished the *cart-whip* in the colonies, and the *cat-o'-nine-tails* in the army. Flogging never improved the habits or morals either of the negro or of the white soldier : its effects are constantly the reverse. Of this I am convinced from my own observation, as well as from the uniform testimony of the most sensible and judicious persons.

“ I would here express an ardent hope that the Ministers of Great Britain, whilst they nobly exert their power in forwarding the great cause of humanity in the British Colonies, will not rest contented till they have banished slavery, or the slave trade at least, from the grasp of other less generous nations, who continue this trade on the coast of Africa. Let us consider that throughout the vast extent of the Brazils, of the foreign islands, Surinam, Cayenne, &c., this traffic in human flesh is still carried on.

“ This is the proper time for negotiating with other powers, the European and American states, as one which offers both precept and example for obtaining a general emancipation. And why allow the naval power of Britain to slumber,—her ships mouldering in the docks, and her

officers on half-pay, though these brave men, as I have heard them declare, would vastly prefer active employment in suppressing this infamous traffic, even if it were on half-pay only? The concurrence of other powers, there is no reason to doubt, might be obtained through the influence of the British Government. If this be not effected, and should the colonies be abandoned to their fate, without some alternative, (as that I have pointed out, or one more efficient), the consequence, it is plain to the meanest capacity, must be, that the British possessions will be annihilated or rendered useless, and colonial commerce will pass into the hands of rival nations, who will thus be excited by additional gains to pursue an execrable trade with more energy than ever."

That such will be the result, and in fact that this is already the matter of complaint among short-sighted and misguided philanthropists, is now (1835) too obvious to be dissembled. Mr. Buxton entirely reiterated his complaint, that, although eight hundred thousand slaves have been liberated by the recent Act of Parliament, there still remained five millions in the most abject slavery. And by accounts just received, the demand for slaves is increasing in the foreign colonies, showing a greater activity or avidity in the traffic.

When Mr. Buxton brought forward in Parliament his proposed motion on the subject of the slave-trade, he referred to the papers laid before Parliament, to show how actively that nefarious traffic had been carried on by other powers, and how, in the short period of a year and a half, 150,000 slaves have been imported into different foreign colonies, and 264 ships engaged in the business. The return from Sierra Leone proved that an extensive destruction of human life took place in the captured vessels. The Hon. Member recommended that slave-vessels when taken

should be broken up, and that prize-money be allowed to the captors on a more liberal scale. No good, however, could be done till the slave-trade was declared piracy, and the right of search conceded by other nations. A general treaty should be negotiated for these purposes, and he could not doubt but France and Spain would join in such treaty. After an address of great length, the Hon. Member concluded by recommending an Address to His Majesty, recommending the negotiation of a treaty for the extinction of slavery.

Thus the blind and impetuous zeal of a party in this country has defeated its own purposes; and, so far from alleviating, has entailed far greater calamities on the African race, as is proved by a notice from Brazil, stating that “vessels are reported in Monte Video almost weekly as arriving from the coast of Africa in ballast! having landed their cargoes of slaves on the coast of that province or of the Brazils.” In fact, it is notorious that this iniquitous trade is daily increasing.

Should the views set forth in this pamphlet, or any similar ones, be adopted, it is probable that the want of slaves will be fully compensated by free labour, even on the coast of Guiana, but most richly so in the interior, where less labour and expense will produce greater returns. Such considerations ought to be sufficient; but if the superior salubrity of the air over that of the coast be added to the immense advantages of the inland cultivation, we should think that all parties would concur in these views—planters, merchants, and every friend to the colonies, to this nation, and to reason, common-sense, and humanity. This, indeed, is the region of health, whilst pernicious fevers still occasionally prevail upon the low mephitic lands of the coast.

Here, in reality, are the means of reconciling every

British interest on this subject. Let Government but bestow a comparatively trifling expense upon the land and water-carriage of Guiana, and the interests of the colonists and of all others may be at once reconciled, and one of the noblest colonies rendered available to the nation.

No wild or impracticable proposal is here made. Little pecuniary sacrifice is required,—little, compared with that which has been uselessly bestowed upon untenable and most pestilential spots on the coast of Africa.

The surplus population of this country* would there find the happiest relief from the miseries to which they are unfortunately reduced,—for their labour would prove a source of wealth to themselves as well as to the mother-country. Besides, it is only under such circumstances that the condition of the black population can be rendered comfortable and compatible with rational freedom and civil order.

Were these views once realized, Guiana and the other West India Colonies would, in a short time, send forth a greater quantity of valuable produce than any other portion of the American continent; and a Company like that here proposed, would undoubtedly compete with every undertaking of a similar kind: it would shortly realize a profitable return for the capital employed, and contribute immensely to the extension of commerce and British manufactures.

* The free-coloured people of North America, the Hill Coolie, the native African, the Maltese, the Germans, Swedes;—one and all, in fact.

APPENDIX.

A few words from Mr. Montgomery Martin's *History of the British Colonies*, may not here be misplaced,—an author whose accuracy, intelligence, and deep statistical knowledge, are too well known to the world to need any commendation from me. He says:—

“Some idea may be formed of the labour required in drainage, and the capital required to establish it, when it is stated that thirty miles of *private* canals, twelve feet wide by five deep, and two hundred miles of drains, are required for the drainage and transportation to the mills of an estate producing seven hundred hogsheads of sugar.”—Vol. ii. p. 135.

It is worth while to contrast this with the inland cultivation, where the produce would be much greater, and with little or no labour of drainage.

In regard to some very material articles of supply, the labours of the Parliamentary Committee prove, that “*a strict monopoly is still maintained in favour of the mother-country, or of her North American possessions.*” This is represented by the Committee as exceedingly prejudicial to the Colonies: and Mr. Martin observes, that “The direct effect of these commercial restrictions has been computed by the West India merchants at the annual charge of no less than £1,392,353 sterling; thus abstracting from the pocket of the planter, in the article of sugar alone, 5s. on every cwt. of sugar he makes.” Page 449.

So heavy, in fact, are the Government imposts, that very frequently, to my own knowledge, the planter, so far from profiting, is a considerable loser on shipping his produce : and such facts justify a remark in my essay, prior to the Emancipation Act, that, “the people of Great Britain are, generally speaking, sensible that it is the mother-country which has hitherto benefited by African slavery, however impolitically ; and that most of the profits on colonial produce have been derived by Government, leaving the planter but too frequently insolvent. Is it not monstrous, then, to suppose that the planters, who have only acted under the regulations of Government, are to be singled out as victims for utter ruin ? If this were suffered to occur, we might then truly deem it the act of a faction, and its professed humanity a farce.”

One of the most useful of all modern improvements is that of the manufacture of sugar *in vacuo*, which would enable the planters to afford this necessary article, raw sugar, at a price within the means of the multitude ; but it appears that both the sugar-growers and the whole nation are to be debarred from profiting by this notable invention, because it would militate against the interests of a few avaricious and wealthy monopolists (sugar-refiners) ; who therefore petitioned Parliament, and, by the aid of specious representations, obtained such a duty to be placed on this manufacture, as must operate as a total prohibition. Such erroneous policy is utterly inconsistent with the commercial intelligence of this country ; and even the Pacha of Egypt has shown more wisdom and liberality of mind, having recently sent to England for an engineer to construct an apparatus for preparing sugar *in vacuo* !*

* By this method, the raw sugar, at a single operation, is obtained in great purity, on the principle latterly introduced of preparing vegetable extracts *in vacuo* ; a method which, with the improvements of Messrs.

It is to be hoped that Government will, in its wisdom, reconsider this matter, and see the impolicy and injustice of those enormous taxations and restrictions on colonial commerce, and allow the colonists to obtain relief from their embarrassments, by the privilege of a free and direct trade with any foreign countries.

No man has ever given a more lucid and impartial view of the wants of the Colonies than the author before-quoted, Mr. Martin: he observes (page 456), that “with the curse of slavery, the blighting effects of hurricanes, and the far more destructive influence of commercial jealousy, the wonder is, how the West India colonies have maintained themselves during the last thirty years; nothing but the unconquerable energy of Britons could have surmounted the ruinous prospects and destruction of property, which have been annually going on, and which will progress in an accelerated ratio, unless the islands be permitted to renew their commercial intercourse with Europe and America, totally unfettered by any legal restrictions from the mother-country. Give, I repeat, the British West Indies that unlimited mercantile freedom, for which their geographical position, fertile soil, and fine harbours so eminently qualify them, and neither the mother-country nor the colonies have anything to fear for the future.” And he adds, “To deny them this much longer, in their paralysed state of existence, must be attended with absolute misery and ruin.”

These are truths which merit serious attention; but Mr. Martin seems not to be aware of certain internal abuses, as

Oaks and Dodson, has been found most successful in Demerara. The depurated cane-juice is thus crystallized, at a great saving of labour and fuel, and at a low temperature, uninjured by heat, or the quantities of lime and bullock's blood, which, both in the old way and in the refining process, are largely employed. It should be considered, that lime, by much boiling, unites chemically with sugar, and forms an unwholesome compound of less sweetening power.

the oppressive taxation by the Colonial Governments, and the waste of public money in divers useless expenditures.

He adds, (p. 449), that "the emigration of Europeans, or whites, to the West Indies, should be encouraged by every possible means; the millions of acres of fertile territory in Crown lands, now lying waste, should be granted at a nominal quit-rent to any person of industry and character for the purpose of colonization." Upon which subject the present talented Editor of the *Liverpool Mail* observes:—"In Jamaica, the owners of the soil are apprehensive that the blacks will not work, and they want from this country whites who will, in order to make their freeholds valuable. Let us, then, suppose the industry of fifty or one hundred thousand persons transferred from England, (in which their utmost exertions, early and late, can scarcely furnish the mere necessities of life), to one where two-thirds the toil will bring threefold the returns.

"How will this additional return be spent? It will reach England, every fraction of it: all their wants are English; and an additional impetus will be given to English manufactures and to British shipping. Let us suppose that emigrants, or emigrants' children, make a fortune, where will it be spent? In England, to be sure. Very exaggerated views are entertained in this country relative to the difficulty and danger of agricultural labour in tropical climates, &c.

"The wages which estates would pay to labourers of this description, may be stated generally at the rate of 8*l.* per man, 6*l.* per woman, 4*l.* per boy above ten years of age, annually, with a house and provision-grounds rent free, as well as a day per week, exclusive of Sunday, for cultivating their grounds. This would enable them to raise sufficient food for their support, and somewhat to sell besides. A labouring family, consisting of father, mother, and three

children (two above ten years of age), might earn as wages 22*l.* sterling per annum, have their house and provision-grounds rent free, live on the produce of the latter, and sell the surplus provisions, which, if they were industrious, would yield them 20*l.* sterling in addition."

In reference to what has been said of the nutritive vegetables of Guiana, it may be observed, that sago might also be prepared there as well as in the East, from several species of palm, as the eta, manicole, mountain cabbage, &c.; and the tapioca, so highly prized in this country as an article of diet for children and invalids especially, is nothing but the *farina de manioc*, divested of the woody fibre by sifting, and might be procured in abundance, and at a very low rate, from the British colonies. I was told by one of the most sagacious of scientific economists, Sir John Sinclair, that tapioca has been proved, by comparative trials, to be one of the most beneficial and wholesome of nutritive substances. Strange to say, this invaluable preparation is as little known in the Colonies as it is here,—that is, with respect to the process for its preparation, although not less simple than that for obtaining cassada bread. When travelling with the *Mamelukes*, so called, (Portuguese soldiers of the coloured race), on the Tacotu and Parime, I found we could subsist very comfortably on a daily allowance of a half-pint measure of this substance. It is erroneously supposed to be the mere starch of cassada, instead of the entire *farina*.

The settlements in British Guiana consist of plantations of one single depth only, along the sea-coast, and extending a short way up the rivers. Yet the commerce of this colony is estimated by Mr. Martin at about one million imports, and three million exports, employing upwards of 132,000 tons of British shipping, about 1200 ships, and serving as a nursery for 11,000 British seamen.

Many of the creeks of this coast have long since disappeared, and are only to be seen on the old Dutch charts; and this accounts satisfactorily for the increasing salubrity of the coast; but, besides which, the indulgence in luxury and indolence, and the use of strong liquors, is by no means so prevalent as formerly.

A singular substance (alluvion) is constantly floating about this coast abundantly, called *drift-mud*: it appears to consist mainly of clay in minute division, blended with slimy animal and vegetable matter, similar to the deposit brought every spring upon the Coos meadows of New Hampshire, alluded to at page 6. It would doubtless form an excellent fertilizing compost for poor lands.

Formerly we had no fresh water on the coast of Guiana, excepting that caught from the clouds on the tops of houses: but the water which Major Staples has obtained by boring is esteemed to be of the purest quality. It is worthy of notice, that water procured from great depths has very uniformly been found to be superior in purity and salubrity to that whose source is more superficial: and another great advantage in deep springs is, they are constant and inexhaustible at all seasons.

It is surprising that to this day the greatest city in the world remains content with the filthiest water that ever man drank; and rather singular too, that in this important matter it should have allowed the infantine colony of Demerara to *go a-head* of it.

It is also worthy of consideration, that emigrants might go out to the West Indies at all seasons of the year, almost indifferently; although the summer months are perhaps to be preferred, as the transition or change of temperature will then be less sensibly felt.

A sudden or unwonted increase of heat evidently rarefies or augments the volume of blood and excitation of the body,

as we experience here in the spring season ; and for this reason, persons on entering warm climates ought to observe moderation in their diet and regimen, especially till they become habituated to the climate. Much animal food and strong liquors increase this tendency to inflammation.

Captain Ross, I observe, in his recent work, speaks of the effects of *oils* and *fat* meats as generating heat, and says, they are found necessary by the natives, for the preservation of life in the frozen regions of the North. This is a curious fact, and, I think, correct ; but animal food in general, whether fat or lean, together with the use of fermented liquors, are ever powerful in resisting the effects of cold, or generating animal heat ; and the observance of temperance and moderation is far more effectual in guarding against plethora and disease than bleeding, as advised by many writers, and which, in fact, is the way to increase the plethora, and a practice by no means advisable as a common rule. Symptoms of indisposition should alone indicate venesection.

Those who, on entering a warm climate, may feel indisposed, with headache or febrile symptoms, will (in plethoric habits especially) do right to lose blood and take some laxative medicine, and wear flannel or thick cotton next the skin, to maintain a moderate perspiration. This requires particular attention ; bleeding in such cases serves to give freedom to the circulation and the secretions. The state of the perspiration, it should be remembered, is ever the surest index to the state of health.

Dysentery, as well as fevers and most other disorders, are to be guarded against by due attention to the perspiration. A striking correspondence between the bowels and the skin is universally acknowledged ; but this is mystified by the name of *sympathy*, *affection*, &c., and hence the obvious and rational practice is mostly overlooked or ne-

glected : on the attacks of disease, purgatives are too much relied on, instead of the direct means, by the use of baths, frictions, and diaphoretic remedies, and by assisting nature, when necessary, to relieve constipation, by laxatives, not drastic purgatives, which cause exhaustion, debility, and nervous disorders.

Not only are cutaneous diseases, fevers, and exanths, most successfully treated by the sudorific method, but those also termed nervous and spasmodic, which are aggravated by the cathartic practice, or often excited by it: even tetanus, which resists all other methods, yields to this, as many judicious persons in Essequibo can testify, and amongst these, an enlightened physician, Dr. Thomas Bell, of long and tried experience, now, I believe, at Cheltenham.

Of the divers remedies used as antispasmodic sudorifics, are the leaves of the cashew and wild guava, and especially a small bitter, aromatic, and camphoraceous plant, called *haiowabally*, of the *Composite* order: it grows on sandy soils, about a foot high. An infusion of it, taken warm, is very powerful in fevers, rheumatism, &c., producing tranquillity and an abundant perspiration. These, and many others, are employed in vapour, warm-water baths, and fomentations, the powers of which are thus very much enhanced. The medicinal plants of Guiana are exceedingly numerous, and I propose to submit to the public some account of the principal ones in a separate work.

It is not unfrequently found difficult in fevers to induce a perspiration, or to maintain it when begun; this is especially observable in the more ardent fevers. In such cases a bucket or two of cold water should be thrown over the patient. This, occasionally alternated with the warm or vapour-bath, constitutes the most essential part in the treatment of fevers, which, together with bleeding, when requisite, are thus most effectually arrested; the collapsed

capillaries or cutaneous vessels being thus excited, a perspiration is produced, and on this the fever is presently brought to a termination; an event which no other known agent under heaven could affect: to this, with God's mercy, I owe my own preservation and escape from many attacks of the most perilous ardent fevers of tropical countries.

Consumption is now declared incurable, measles exceedingly fatal; and by the public prints of the day, we find most respectable and honest practitioners declare that upwards of half the number of their patients die who are attacked with small-pox. Are diseases in general more virulent or less tractable now than formerly? or, does the ill success arise from mistaken views of the nature of disease, the consequent misapplication of remedies, and imbecility of the healing art (the fault of the schools, not of individuals)? and, is it not that a diligent study of disease and of remedies has given place to an infinity of vain speculations (termed *scientific*) on anatomy, physiology, chemistry,—to metaphysical hallucinations, and unprofitable puzzles on the functions of the brain and nervous system,—which, like the *ignis fatuus*, only bewilder and recede from the pursuer.

These remarks are taken partly from a MS. work of the author, and may be deemed out of place here; but a medical friend has suggested, that works expressly on medicine are not read unless by very few, and those who, for the most part, are jealous of innovations, who hold in reverence all that is consecrated by time and high *authorities*.

Some better regulations should be substituted in the Colonies with respect to religious instruction; for although many of the missionaries undertake their office with the most correct motives, it is not so with all; there are those who seem bent on sowing dissensions amongst the black population, which I know to be true, whatever may be said to the contrary.

Notice of Timber and Fruit-trees in British Guiana.

Considering the enormous expenditures incurred by Government for supplying the British navy with timber for ship-building, as now obtained from North America and the Baltic, it might be an object highly worthy of attention to establish a naval arsenal or depot in the Colonies, where abundant materials might be obtained at comparatively trifling expense: and no part of the world, perhaps, offers so great advantages to this end as the united colonies of Essequibo, Demerara, and Berbice.

It is well known that vessels built in Brazil are of a very superior description in respect to strength and durability. Guiana furnishes, for the most part, the same woods, and many others unknown to Europe. I shall here briefly enumerate a few of the more valuable timber-trees which are best known in the Colonies, and employed either in ship-building, for colony craft, or in the construction of houses. Besides these, are other finer species of woods, which might be sent to Europe as most valuable for cabinet-work, turnery, and household furniture.

Of woods mostly employed, I shall first give the result of Reports drawn up by practical shipwrights of long experience in the construction of schooners and colony vessels; the first nine, following, being from their Reports, nearly *verbatim*, adding only a reference to the genus or botanical affinities, so far as known.

“ 1st. *Seperi*, or *Green-heart*. This is a remarkably fine-grained and hard wood, well adapted for vessels’ planking. Can be had from twenty-four feet to fifty, squaring from twelve to twenty inches, well calculated for all water-works.

“ 2nd. *Mora* (*Mimosa* sp.) This wood is the same as the celebrated teak of the East Indies, and equal, if not

superior, to oak, (not subject to dry rot, in the tropics at least.) It can be obtained in lengths from thirty to fifty feet, and squaring from fourteen to twenty-four inches. The crooked timbers of this tree and the planks would be of the greatest utility for keels, knees, and planking of the upper works of the largest vessels in the navy.

“3rd. *Sawary* (*Pekea tuberculosa*, Aubl.). This is of nearly the same nature and properties as the above, except that it cannot be obtained in such lengths, but in many other respects equally eligible, and usually squares something larger.

“4th. *Bully-tree* (*Achras balata*). This tree is of a dark purple hue, hard, and well calculated for beams, posts, or uprights, &c.; it can be obtained of various lengths, and will square from twelve to twenty-two inches.

“5th. *Sirwabali* (Fam. *Laurineæ* or *Ocotææ*), three or four different species.* This is a lighter wood than those above described, and is remarkable for a peculiar aromatic bitterness which it contains, and acts as a preventative of the attack of worms. This is the wood of all others preferred in the colonies for planking of craft, and on that account is well adapted for the construction of long boats, gigs, &c., or any other works subject to be attacked by worms. This wood floats.

“6th. *Crabwood* (*Carapa Guianensis*, Aubl.) This is a light and red wood, generally used in the colonies for floors and partitions. This wood *also floats*.

“7th. *Purple Heart* is one of the finest and most valuable woods to be found in nature; its dimensions are large, and its qualities are superior to any other wood in sustaining the shocks occasioned by the discharge of artillery. At the siege of Fort Bourbon in Martinique, this wood stood the test, while all others failed, as mortar beds.

* One of these (the yellow Sirubally) is the rose-wood, *bois de rose*, which exhales a fragrant odour.

“ 8th. *Tonkin Bean* (*Diptera odorata*, Willd.) This is a very hard wood, fit for the cogs of wheels, or anything that requires great pressure.

“ 9th. *Cabacally* is similar to Bully-tree in most respects, and little inferior to it, being very hard and durable.”*

Carana, Cedar of the woodcutters (*Icica altissima* of Aublet.†) A very large tree, the wood of which abounds with resin. It is light, and much like deal, but far more durable, and of a reddish colour. It would probably be a most excellent material for the masts of vessels, being sixty or seventy feet in length, and four or five feet diameter. Bark red, very astringent, and excellent for tanning. Abundant through interior Guiana.

Wallaba. A most durable reddish-brown wood, full of an oily resin. It splits smooth and freely, and is universally employed in the colony for covering houses, for water-vats, &c. : it is the *Eperua* of Aublet; Willdenow calls it *Panzeri*. It attains about sixty feet in height, and three or four in diameter; bears a large sabre-shaped legume.

Nacoca, *Iron-wood*, called Palo Santo by the Portuguese; a large leguminous tree (*Robinea panacoco*, Aubl.) The bark of this tree, as Aublet observes, is employed in sudorific tisans; it is rough, thick, and gives out a red balsamic liquor. The wood is reddish brown, becoming black by age: it is hard and compact; in great esteem at Cayenne in the construction of vessels. It is regarded as incorruptible, according to Aublet, who says he had seen pieces of this

* The leaves of this tree are remarkably fine or small; and a singular coincidence is generally observable between the texture of the wood and size of the leaves amongst the tropical vegetables, in the trees especially, so that, on seeing a leaf, we can form a very probable idea respecting the degree of hardness or solidity of the wood. I have no idea of the classification or botanical analogies of this tree, the Cabacally.

† From this tree it is that the balsamic odorous resin, called *carana*, is procured, the source of which has heretofore been a matter of conjecture.

wood which remained sound after having lain partly buried in the ground for more than sixty years.

Pucheri and *Waibyma*, large trees of the laurel kind; excellent timber : abound on the mountains of Reponony. Specimens of the bark of *Waibyma*, brought by the writer in 1811, are still strongly aromatic: used by the natives as a remedy in fevers and dysentery.

The *Yari-yari*, a small tree, grows slender and straight, (*Anoniaceæ*). This is the lance-wood, already known here to coach-makers as the best material for the shafts of carriages, and which, they say, from its toughness or elasticity is not subject to be broken.

Yarury, a large tree, the roller- or paddle-wood. This, probably, might furnish the best material for floats or paddle-wheels of steam-vessels, as being, although light, exceedingly strong and elastic; and not being subject to splinter, it might also prove superior for gun-carriages, and for the bulwarks of ships of war. The lower part of the trunk grows into singular fluted or flat tabular projections, forming cavities or compartments, capable of holding several persons. Other trees of the tropics occasionally assume a similar structure, as the *Mora*, and some large fig-trees, which occasionally serve the natives as ready-made planks for floors, tables, or benches. The *Yarury* appears to be a nondescript both in genus and species. It pertains to the fifth class and first order of Linné's system. Its curious fruit and capsules may be seen at the Med. Bot. Society's Rooms, Sackville-street, noted in my botanical memoranda under the title of *Yaruri tabularia*. The bark of this tree is very bitter, and has been employed as a substitute for the cinchona with great success by Dr. Burton.

Simiri of the Arowaks (*Hymenæa courbaril*). A very hard and compact wood, used for mill-rollers. On the higher lands it yields great quantities of copal, or a resin

scarcely distinguishable from it. It is singular that the guttiferous trees seldom give out their exudations on the coast, which they do abundantly inland.

The *Bicy*, or *Besie*, of which the Indian corials and canoes are chiefly made, is of great durability, and is, like the *Siruba*, proof against the worm. This tree, or a variety of it, yields a singular green resin, which might be applied to valuable purposes as a varnish.

A species of wild Orange, called by the natives *Warana-na*, a timber-tree, grows large in Pomeroon, Supinam, &c.

Oubudi. The wood of this tree is white, soft, and only fit for heading for sugar-hogsheads, boards for wainscoting, &c. : unless cut down about the time of the new moon, when the sap is said to be down,* it is subject to be perforated by the borer (*Teredo*) and other small worms. (See p. 15.)

The *Macorypong* (?), the tree which bears the Ackawai nutmeg, so termed (of the mountain regions) is said to be durable timber, but is chiefly prized for its large aromatic and astringent fruit, which is considered to be one of the most efficacious remedies in diarrhœa and dysentery, colic, and spasmodic pains. Its botanical history is entirely unknown; but Dr. Lindley, who has inspected the fruit, regards it as pertaining to the natural order *Laurineæ*.

Bannia, a dark-brown and very hard wood, similar to ebony.—*Ducalibali*, and *Letter-wood*, one of the most precious and beautiful of ornamental woods; as also *Hobobali*, and numerous other fine woods, adapted for cabinet-work and turnery, for divers ornamental purposes.

The common fruits of the tropics are so abundant in

* This remark applies more or less to all timber. It is founded on the experience of the wood-cutters; and, in fact, common observation proves that the lunar influence is far more sensible in equinoctial countries than in high latitudes, on the weather, vegetation, &c.

Guiana, that the wild or native ones are not attended to, and remain mostly unknown: the *Pacory*, a species of *Garcinea*, or Mangosteen, gives out a grateful perfume. It grows to a large tree on the Pomeroon, Tapacoma, and divers parts of the colonies. Its wood is employed for planks and framing, and its large apple is eaten by the natives; yet to this time it remains unknown, perhaps, as to its botanical affinities, or its alliance to the prince of East India fruits. The tree is replete with a yellow gum, much like gamboge: but the true *Stalagmitis cambogioides* (or a near species) is also found near the coast, a small diœcious tree, observed aback of the Richmond and Lima estates.

I subjoin a list of several other trees. I give the native names, for the best of reasons, because, with few exceptions, we have no others, their botanical history being little known; and although it were, yet the vernacular names are alone useful for readily identifying, or finding, through the natives, any tree or other production wanted. It may be observed, however, that the natural families of *Sapotaceæ*, *Laurineæ*, and *Malphigiæ*, furnish a very large proportion of the more valuable timber and fruit-trees.

| | | |
|--------------|-------------|-----------------|
| Bartabali. | Kakarawa. | Kula. |
| Touraneru. | Akaraku. | Kamakusa. |
| Assepoca. | Quaku. | Juribali. |
| Hymarakusi. | Kurudani. | Kautaballi. |
| Kumara-mara. | Urehi. | Etikeburiballi. |
| Arawiwa. | Waremia. | Sibbadani. |
| Hakkia. | Kofassa. | Tataba. |
| Armiosi | Waiki. | Diterma. |
| Duka. | Maparakuni. | Hyaribali. |
| Hya-hya. | Sirada. | Kurahara. |

The first fifteen are trees which bear edible fruits, some very delicious, and would yield very excellent wines, cor-

dials, and spirituous liquors, and most of them are valuable timber. The *Sibbadani* is, perhaps, the bitterest of all woods; even the *Quassia amara* has not half the power or intensity; and from its antiseptic and salutary properties, it might be found a valuable addition to malt liquors. From the berries of the *Urehi* the natives prepare a most pleasant nutritive drink, similar to chocolate,—as they do likewise another from the fruit of a species of Palm, called *Parapi*. This tribe of plants too, the palms, are so numerous in Guiana, and in their uses so exceedingly diversified, that a volume would scarcely suffice to give a tolerable idea of them; about fourteen different species have been observed growing in the vicinity of Palm Grove Tapacoma.

I am gratified to find that the observations I published long ago, on the soil and natural advantages offered in British Guiana, have been recently corroborated by other more able and intelligent travellers: by Mr. Schomburgk, (who, I am told, will shortly publish on Guiana), and by Mr. Scobel. The latter gentleman has remarked, in his lectures on Guiana: “It is one of the most splendid appendages of the British crown; there is ample room for forty millions of people; it has a soil of inexhaustible fertility.”

The same is fully borne out by Mr. Nicholson, a gentleman of well known probity and sound judgment; whose opinions are formed, not on hasty travels, but on thirty years’ practical experience in Guiana. He has not confined his views to the coast; he possesses a farm some thirty or forty miles inland. The advice this gentleman could furnish, would be of great importance to settlers.

In the tracts I published in 1833-35, I stated it as my full conviction, that when the desired event of Emancipation should be accomplished, the cultivation of the coast lands would inevitably fail, unless it could be supported by the introduction of labourers and industrious persons from

other parts, as well as by the aid of the plough and animal labour.

The anticipated results have been too fully verified. The average sugar crops have fallen off *one-half*, and coffee still more, as appears by the official documents. This state of things is truly disastrous, and unless relief be promptly applied, must lead to the absolute ruin of the planters, and the loss of one of the finest colonies that ever belonged to the crown of Great Britain; possessing as it does the greatest national advantages for the extension of agriculture and commerce.

As before remarked, in consequence of the heavy imposts, and the interest paid to mortgagees in this country, the planters have heretofore saved but a small portion of the avails of their produce; and now, not only is this small profit lost, but they themselves are, many of them, brought still more deeply in debt.

In this appalling condition, they naturally look to the mother-country for relief and redress. But what do they hear? that the demand upon their pockets in the shape of a civil list is to be *increased*, and that in proportion as their means are diminished. Nor is this all; they are prohibited by the Government from introducing free labourers—the only resource that can save them from ruin.

Here, in Guiana, is a fertile country, containing more than 100,000 square miles, and scarcely more than one individual human being to the mile!

In the present case, every encouragement ought to be given to emigration, from this country and other parts of Europe, from Belgium, Holland, Sweden, &c. The more northern people, so far as my experience goes, appear to resist the effects of a hot climate better than those from the British Isles. But none, who will observe temperance, and guard for some months against excessive fatigue and

sudden chills, need fear the climate; and the endemial fevers, when found to be approaching, will be arrested by a speedy resort to the appropriate remedy, a free perspiration, obtained by means which promote all the secretions.*

Whilst emigration is restricted and the colonists are burdened with taxation, the prices of colonial produce will be increased; in effect, a premium is thus held out for the encouragement of slave traffic in the neighbouring colonies. Such an impulse, indeed, has been given to this diabolical trade, through mismanagement in Colonial affairs, that the miseries of the Africans have been increased perhaps four-fold; and that, after the sacrifice of twenty millions, drawn from the people of this country! But the restrictions and disabilities imposed on the Colonies, are, in all respects, highly impolitic and unjust, as tending to the diminution of trade and the national resources, and placing the tropical productions beyond the reach of the great mass of the British public.

I should ever, as heretofore, advocate perfect equality and freedom, in respect to civil, political, and religious rights, amongst all classes,—Europeans, Africans, and aborigines. Policy, indeed, independently of all motives of liberality or magnanimity, would dictate this principle; for, in a country consisting of different castes, ruled by a minority of so great disparity, no government could for a

* As a common drink, to cool and attemper the blood, a light alterative ale or fermented infusion of sarsa, waikori, bark of guaiacum, and treacle, will be found an extremely salutary and agreeable beverage; at once detersive, refreshing, tonic, and restorative; removing the seeds of disease (*semina morborum*) or the primary causes of fevers, dysentery, rheums, and the greater number of disorders, acute and chronic, which are engendered by corrupt humours, or perversion of the blood.

It should be borne in mind, that, when disease is found to be approaching, a warm sudorific cordial, with external warmth and exercise, or frictions, will seldom fail to prevent its formation.

single day be considered secure from perils and outbreaks. I should say, let there be, at least, equal freedom with that which constitutes the boast of Englishmen,—however small, in reality, some may consider this to be.

There are already, indeed, many posts of honour and profit very creditably filled by persons of colour in British Guiana, especially Berbice;—in the Civil and Military Departments, in the Governor's suite, and as members of the College of Keizers and Financial Representatives, as Local Magistrates, and Managers of Estates. In private and public parties, too, they mix indiscriminately. In fact, distinctions, so far as they depend on colour, are totally abolished.

Much has been said of the Hill Coolies, so called, who were introduced about two years ago into Guiana. As might be expected, some difficulties arose from inexperience; it was scarcely recognized that these people, as well as Europeans, require tranquillity and ease during their *seasoning*, or assimilation to the climate; and from the mutual misunderstanding, some of them, it is said, received ill-usage. But this, by an early interference of the authorities, was promptly corrected; and doubtless, abuses of this sort will be carefully watched in future. In all communities will be found some delinquents; and I would recommend, when parties are guilty of oppression or cruelty, that instead of being defended, as is too often the case, they should be held up to public execration, as the greatest enemies of the colony. The Coolies now perform their work, I am told, with cheerfulness and alacrity; both parties, the employers and the employed, are mutually satisfied; and many of the latter have declared, that, when their indentures shall have expired, they will go to Calcutta, and return with their families. These facts are attested by authentic documents and by gentlemen of the highest respectability; and per-

sonal reference will be given to those who may desire further information on the subject.

The natural advantages of Guiana have ever been strangely disregarded by the British Government : so little being known of it, that in parliament the learned members are often heard to speak of the islands of Demerara, Essequibo, &c. The evils of such defective knowledge have become apparent since the treaty of Vienna. The fine country of Guiana was parcelled out amongst three or four different powers, whose diplomatists understood better the value of these Colonies. Surinam was ceded to Holland, Cayenne to France, and the province of Rio Negro was surrendered to the Portuguese. Then the Spaniards had a claim to an undefined tract on the north. At the said treaty, the whole country might have been secured to the British empire, and therewith the command of two of the noblest rivers in the world, the Orinoko and the Amazon, which bound this vast tract on the north and south.

It would be difficult indeed to conceive why this sacrifice was made by Great Britain, after the expenditure of so much blood and treasure in a gratuitous warfare.

These mistakes cannot now be rectified ; it behoves the government, according to the old adage, to make the best of a bad bargain. For the present age, British Guiana will, and for ages to come, afford abundant tracts for the purposes of colonization and the extension of tropical agriculture.

I have been induced to bring the present pamphlet again before the public, at the suggestion and with the kind aid of a worthy and enlightened friend, the Rev. Stephen Isaacson, A.M., one of the most zealous and able advocates for the rights and prosperity of the British Colonies.

APPENDIX II.

ON the subject of religious instruction and general education, it is here advisable to observe that every encouragement is given, and most ample provision made, to embrace all classes of the labouring population of British Guiana; in proof of which we have the testimony of Mr. Latrobe, a government commissioner, in his Report on Negro Education for 1838, as appears by Parliamentary Paper, No. 35, printed 18th February, 1839. He says at page 1 :—

“ MY LORD—I have the honour to forward to your Lordship the accompanying papers referring to the present state of Negro Education in the colonies of British Guiana and Trinidad.

“ With regard to the former large and flourishing colony, a glance at the details collected for your Lordship’s information, cannot fail to convey the impression that, however recently the subject of Negro education may have begun to engage the public attention, it has been taken up with a spirit of earnestness and of liberality highly creditable to the inhabitants.

“ In no other British colony in this part of the world, has the legislature so fully and so unhesitatingly met the views and wishes of her Majesty’s government, both by readily voting the application of public funds to the purposes of Negro education, and by taking instant measures for their proper and speedy appropriation.

“In addition to the sums voted in 1836 and 1837, in aid of the support and the increase of the means of education in the rural parishes of the colony, a sum little short of 34,000 has been placed upon the estimate for 1838, to be applied to purposes connected with the dissemination of religious instruction in one form or another throughout the country.

“In the distribution of the various sums that have been voted, more especially for the education of the labouring classes, the legislature has adopted the plan of proportioning the amount of the assistance given to the several English or Scotch parishes according to the Negro population of each; confiding the precise manner in which the money should be applied to the respective vestries and resident ministers of the two established churches.”

And the estimates are given at length at page 80—1, at the conclusion of which Mr. Latrobe adds the following candid remark, which is worthy peculiar attention :—

“It is considered that the amount of private contributions in the colony is greatly underrated, and that, when all subscriptions are paid in, it will not fall much short of 22,400*l.* Upon this supposition, a sum total but little short of 75,000*l.* appears to have become available to the purpose of spreading religious instruction, and of promoting education throughout the colony, in connexion with the Church of England alone.”*

The sums, indeed, appropriated by the colonial legislature for the above purposes, have been on a most munificent scale since 1824, long previous to the period to which Mr. Latrobe refers; and in 1839 the funds appropriated were

* The friends of Education and Religious instruction, indeed, are referred to the entire report, as containing much valuable and important information in reference to British Guiana and Trinidad.

fully equal to that of 1838. Whether the grants for 1840 will be on so large a scale, is a matter of doubt, if the means are to be raised by taxes levied on the exports of the colony, the staple of which is sugar ; and last year the colony exported only 30,000hds., while in former years the average was 63,000hds. This falling off in the productions is attributed to want of labourers ; and unless a supply of labourers is furnished, the colony will soon be deprived of the means of supporting the large school and church establishments.

From my own personal observation, and from the testimony of many able and disinterested gentlemen, who have visited British Guiana since my departure from the colony, I am quite satisfied that labourers alone are required to make it one of the most productive and flourishing colonies belonging to Great Britain. Sir Andrew Halliday, who visited Guiana, in a work published in 1837, says,

“ During the late revolutionary war, and when the French had converted Holland into a province of their mighty empire, Great Britain took possession of the Dutch West India Colonies. But at the peace of Paris, in 1815, they were all restored to the King of the Netherlands, with the exception of the three which now constitute the province of “ British Guiana.” These were retained by Britain, and a price actually paid for them, notwithstanding that they had been conquered during the war. The coast-line of this rich and important colony, may, as I have stated, extend to a little more than 200 miles ; but its depth, or length inland, has not (so far as I am aware) been as yet determined. One or two travellers do say, that they had penetrated so far to the south, that from the summit of the Cordilleras they could discern the South Atlantic Ocean ; and that from the said heights the waters parted north and south. Hence, some have conjectured

that this is the southern boundary of British Guiana ; though its true latitude has neither been ascertained, nor is it at all stated in any work that I am aware of. My own opinion is, that our territory extends to the banks of the Amazon, some degrees south of the equator. I may, however, safely affirm, that this country embraces many more acres of land than are contained in Great Britain and Ireland combined ; and is a far more valuable possession than either Mexico or Peru, with their gold and silver mines, or even the Brazils, with all its diamonds to boot. Here we have a very different soil from that of Barbados—a rich alluvial compost, 147 feet in depth ; and quite inexhaustible, both as regards quantity and quality ; and which, as to cultivation and colonization, has limits that I might say are boundless.

“ As yet a few patches only along the sea-coast, and on the banks of its three great rivers, have been subjected to cultivation ; and such are their productiveness, that the exports of this colony are already nearly on a par with those of the large island of Jamaica, with its labouring population of more than 300,000. If cultivation and population proceed and advance in any thing like the ratio they have lately done, it would be a matter of little import (in as far as sugar, rum, molasses, and coffee, and even cotton, are concerned), a few years hence, though all the islands in the Caribbean sea were returned to the bottom of that great deep. British Guiana could furnish a supply of these articles for the whole world, and for 10,000 years, and still have fresh soil to bring into cultivation.

“ It is of the utmost importance to Great Britain that the attention of government, and of the whole community, and more especially of our merchant-kings and adventurers, should be drawn to and affixed upon this rich and invaluable colony ; for, were its resources truly known, its

advantages duly appreciated, and its capabilities fully examined and explained, it would indeed soon become a wealthy state; and George-town, already a crowded and flourishing sea-port, would rival, if not surpass, New York. Great capital is not even necessary,—it only requires labourers to till the ground; and I am happy to have to state that since the galling fetters of slavery have been removed, and the negro is allowed to bring his free services to the best market, many are flocking to this land of promise.”

And with respect to the climate:—“As cultivation advanced, and draining improved, the sources of the pestilence were, at last, in a great measure dried up; and now that regularity, good order, and sobriety, are strictly attended to, I hesitate not to affirm that British Guiana is the healthiest colony in the West Indies; and, after an European has formed a little acquaintance with the mosquitos and sand-flies, it will be found also by far the most pleasant to live in.

“There is not, I believe, upon the face of this earth, any spot where a man, by industry and economy, and the advantage of a small capital, can acquire in so short a time a moderate independence, and thereby be enabled to return to his native land with a constitution very little impaired.”

And this independent and unimpeachable testimony is fully supported by Sir J. C. Smith, in a minute addressed to the Court of Policy, as Lieutenant Governor, in 1836.

Copy of a Minute addressed to the Members of the Court of Policy by his Excellency the Lieutenant-Governor, upon the 26th February, 1836.

“Gentlemen,—I am desirous of recording my sentiments with respect to the proposed importation of liberated Africans from the island of Cuba into British Guiana; and the

period when an ordinance is before this court for regulating certain details connected with the measure, appears to afford me the most eligible opportunity.

“ 2.—You are aware from the Lord Glenelg’s despatch, that the introduction of the liberated Africans into this province is an arrangement which I had the honour to propose to his lordship. In drawing his lordship’s attention to the subject, I were well aware of the additional trouble, labour, and responsibility, I necessarily would have to incur, if the proposition were acceded to. A person of a less anxious disposition (without laying himself open to the charge of indolence) might easily have avoided exposing himself to be called upon to undertake additional occupation of an unpleasant and harassing nature. A sense of duty—a desire to promote, by every means in my power, the welfare of an important province entrusted to my government—and above all, a wish to contribute towards the sum total of human happiness, and, in so much, to diminish the amount of human misery—have governed my conduct upon the present occasion. *This magnificent country will, for ages to come, amply repay the capitalists, and be able to employ any number of labourers.* The liberated Africans are undervalued, ill-treated, and neglected in the island of Cuba. So many have been sent there, by our men of war, that the Spanish government are alarmed and uneasy as to the possible effects that the introduction of such a number of free negroes may have upon their slave population. Here, on the contrary, the services of the liberated African will be valued, and he will be treated accordingly. Slavery being at an end, he cannot conspire with slaves. He will be subject to moderate restraint, and be considered in tutelage for three years ; and as, during that period, he will be taught the value of labour, and be encouraged in industrious habits by being paid in proportion to his work, and as, moreover,

he will receive religious and moral instruction, I am sanguine in my expectations that the liberated African will eventually become a respectable and a useful member of society. These, gentlemen, are the motives by which I have been influenced. The importation of liberated Africans is a measure fraught, as I most sincerely believe, with incalculable benefit to this rising colony, as well as with important advantages to the individuals themselves. Under this impression I have proposed it—and under that impression I shall most carefully watch over its progress.

(Signed)

J. CARMICHAEL SMYTH.

A true copy,

H. E. Young, Gov. Secretary.

February 26, 1839.

Nor must we omit the remarks of Governor Light, and Mr. Scoble, of the Anti-Slavery Society; the former of whom, speaking of the emigration of the Hill Coolies to Guiana, says:—

“I am convinced that under proper regulations, as to sexes and location, the natives of India might safely be introduced here, *to the great amelioration of their own condition*, and the undoubted benefit of the province, which only requires labourers to make it a SECOND INDIA.”

And the latter gives a description of the capabilities of the soil, which must for ever remove any doubt in the minds of unprejudiced individuals as to the peculiar adaptation of the country for the purposes advocated.

“British Guiana is a colony on the coast of South America, and which will ere long rival, in its wealth and population, the state of New York. It is capable of sustaining a population of FORTY MILLIONS, though the actual number of the inhabitants is now only about a hundred thousand. It possesses an inexhaustible soil, of amazing fertility and depth: it has been ascertained, by actual admeasurement,

that in some places the rich alluvial compost extends to the depth of one hundred and forty feet. There are there fields of cane which have been kept up by a process called 'ruttooning' from forty, fifty, sixty, or seventy years. It is only necessary to thrust the top of the cane into the soil, when it springs up, and spontaneously yields the richest produce. This is the province called Demerara."

The great want of labourers is further evidenced by Mr. Schomburgk in his diary when travelling in Guiana. Almost his first observation is—

"Nov. 25, 1836.—Quitted New Amsterdam with the flowing tide, and paddled rapidly up the first or sea reach of the river Berbice, in a south direction, for about three miles, when the river turns abruptly in a W.S.W. direction; its average width about half a mile. As the sun rose on the following morning and dissipated the fog, the river's banks presented a continued line of cultivation; thousands of mocking birds (*Oriolus Perisis*) rose from a wide-branching and aged orinok-tree (*Erythrina* Spec.?), where they had roosted for the night, and gradually dispersed in all directions. As we proceeded, cultivation continued on the eastern bank; but on the opposite, Nature had reclaimed her own. What a contrast do these shores now present, when compared with their aspect towards the close of the last century! Then plantation followed plantation as far as the Savonette, the last estate of the Dutch West India Company, about sixty miles from the sea: of the greater number of these scarcely a vestige now remains, yet free labour and capital alone are wanting to restore the former scene of beauty arising from high cultivation, uncontaminated by the baneful influence of human slavery."

From all these united authorities it is clear that natives of Africa and the East, as well as Europeans, might settle

with immense advantage in this magnificent and most fertile region. And if England is to be rendered independent of foreign slave states for supplies of sugar, molasses, rum, coffee, and even cotton, no time should be lost by the British public in forcing the subject on the attention of Parliament, that laws may be passed without delay for the encouragement of the free emigration of a suitable number of labourers, on a scale commensurate with the pressing wants of the colony; otherwise Great Britain will soon be dependent on the Brazils, Cuba, and Porto Rico, for their *slave-grown* sugar and coffee, as she now is on the United States for *slave-grown* cotton.

But this is a state of things never contemplated for a moment by the Government and country, in the great and glorious measure of Emancipation; and I am happy to find, from an article in the *Bristol Journal*, that the attention of good and wise men, of all parties, is now directed to the supply of the labour so much required for the very existence of *English* colonies, through the legitimate channel of *immigration*. By this, the barbarous natives of tropical climates would exchange a state of real slavery at home, for one of remunerating industry, upon the free and reciprocal contract. The "slavery" of which we speak, is thus described in a valuable work, *Forbes' Oriental Memoirs*, written with no reference either way to the West India question—

"The poorer Malabars live on rice, salt-fish and jagree; those who cannot afford rice, content themselves with natchee, a grain of inferior quality. The despotism of the government frequently occasions an artificial famine, and the inhabitants fly the country. Should the ground be only annually inundated, the ear droops, and yields but half a crop. On such occasions the poor wretches are driven to Anjengo and other sea-ports, where you see a

youth selling himself for sustenance—a mother offering her infant son for a bag of rice—and a desponding father parting with his wife and child for forty or fifty rupees !”

“Malabar children are generally a cheap commodity at Anjengo. At the end of the rainy season, when there was no particular scarcity in the interior country, I purchased a boy and girl, about eight or nine years of age, as a present to a lady at Bombay, for less money than a couple of pigs in England. I bought the young couple, laid in two months provisions of rice and salt fish for their voyage, and gave each of them four changes of cotton garments, all for the sum of twenty rupees or fifty shillings. English humanity must not pass censure on that transaction: it was a happy purchase for the children—they were relieved from hunger and nakedness! A circumstance of this kind happened to myself. Sitting one morning in my veranda, a young fish-woman brought a basket of mullets for sale: while the servant was disposing of them, she asked me to purchase a fine boy, two years of age, then in her arms: on my upbraiding her for want of natural affection, she replied with a smile, that she expected another in a few weeks, and she could not manage two: she made me the first offer of the boy, *whom she would part with for a rupee!*”

The following report of a medical gentleman of high reputation in Guiana, proves that the climate is altogether favorable to this class of emigrants, and must have a beneficial effect in disabusing the public mind upon this important point, as those, who are hostile to the West Indies, have made the introduction of the Coolies a subject of bitter complaint; and gone so far as not only to question the adaptation of the climate, but also to cast reflections on the conduct and ulterior views of the planters and the government:—

“EXTRACT FROM A REPORT TO GOVERNOR LIGHT, BY DR. SMITH, OF THE COLONIAL HOSPITAL, IN DEMERARA, IN REFERENCE TO THE COOLIES PLACED UNDER HIS CARE FROM PLANTATION BELLEVUE.

(From the Demerara Gazette of the 15th August.)

19 cases have been cured, of whom 17 have returned to the estate, and 2 remain in hospital for a few days;

2 have died;

6 remain under treatment.

27

“I beg leave to say that I entertain a more favourable opinion of the constitution of the Coolies, in reference to their adaptation to this climate, than of any other class of immigrants whom I have seen in this colony.

“Of the thirty coolies (including the interpreter and two cooks) placed under my charge, none have been attacked since the 7th June with intermittent fever, the epidemic of British Guiana, nor do any seem to have suffered prior to that period from this cause.

“I am unable to arrive at any positive conclusion as to the greater or lesser liability of the Coolies to ulcers, when compared with other labourers in the colony, in consequence of those only who were affected with ulceration being placed under my care. I am, nevertheless, of opinion, that those whom I treated were not constitutionally predisposed to that affection, but that they suffered in consequence of chigoes, and of their own ignorance of the proper mode of ridding themselves of these very troublesome insects; this opinion is strengthened by the fact that, in twenty-five of the twenty-seven cases, ulceration was confined to the toes originally, and extended thence to the foot.”

The annexed copy of a memorial recently transmitted to Her Majesty's Government, by the inhabitants of British

Guiana, exhibits the great want of labourers, and the unlimited number that would find profitable employment in that colony.

“That your Petitioners are Inhabitants of your Majesty’s Colony of British Guiana—many of them Natives thereof—others who have adopted it as their Home—and all interested in the prosperity of what they believe they are justified in calling one of the most valuable appendages of the British Crown.

That the importance of British Guiana, as a Colony, and as a mart for British manufactures, is to be estimated less by reference to what it is, and has been, than to what it is capable of becoming.

That in order to illustrate this position, your Petitioners would represent that there are, in this Colony, immense tracts of land, allowed by all not to be surpassed in fertility by any other in the world; while the population of this extensive Province does not, at this moment, amount to more than one individual in the square mile.

That your Petitioners would also advert to the great superiority, that a Colony forming an integral portion of the Empire, and, as such, subject to the authority of the Imperial Parliament, possesses, as a mart for British manufactures, over any foreign state—the mutual intercourse, between the parent state and its dependency, not being liable to be disturbed by capricious changes in a system of commercial policy.

That your Petitioners would humbly represent to your Majesty, that the operation of the Act for the Abolition of Slavery, and the Act for Total Emancipation, has so diminished the number of Agricultural Labourers, that not only are vast tracts of fertile soil lying in this Colony unproductive, (tracts which, if cultivated, would give support to many thousands of your Majesty’s subjects, and add large sums to your Majesty’s Revenue), but that, of the estates in cultivation, some are already deeply injured, by the abstraction of labour from the production of the staple exportable commodities, while other estates must inevitably be abandoned, unless the supply of labour to British Guiana be speedily and largely increased beyond its present extent.

That your Petitioners would therefore state, that so far as this Colony is concerned, the disability under which it labours, and which impairs its strength, and contracts the means of production, is a deficiency of labour and industry.

That this state of things is not only pregnant with ruin to the landed interest of this Colony, but prejudicial to the moral condition of the labourers themselves, as idleness tends to increase, and is almost universally the originator and companion of crime.

That the remedy for all these evils is simple, and is, in the opinion of your Petitioners, attainable without any sacrifice of those principles of humanity and policy, which ought to influence a question of this nature and magnitude, but is, on the contrary, characterised and recommended by its forwarding the ends of these great principles of right : that the adoption of the means to accomplish this remedy, will prevent the destruction of the capital of many of your Majesty's subjects, and will prevent the demoralization of others : that it will open a field for the employment of a large additional amount of capital, and will afford an opportunity to many thousands, of transferring their services and industry from countries where they are very inadequately rewarded, to one where the fertility of the soil, and demand for their labour, will ensure them comfortable and even abundant subsistence.

That your Petitioners most respectfully assure your Majesty, that British Guiana has substantial advantages to offer to a portion of the vast population of India, as well as to Emigrants from other quarters ; and that their condition would be greatly advanced, physically and morally, by Emigration to this Colony.

That your Petitioners have learned, with the deepest regret, that an Ordinance, framed by His Excellency the Governor and the Honourable Court of Policy, for the encouragement of Emigration, has failed to receive your Majesty's assent, and humbly trust that your Majesty will be graciously pleased to give your royal assent to another Ordinance, to be passed by his Excellency the Governor and Court of Policy, embracing such principles of humanity, and justice, as to your Majesty may seem meet.

That your Petitioners entertain a hope that your Majesty will

be pleased to sanction a plan for raising, through his Excellency the Governor and the Honorable Court of Policy, combined with the Financial Representatives of the Inhabitants of the Colony, a sum not exceeding £400,000, on loan, for the purpose of carrying an extensive project of Immigration into effect.

That your Petitioners consider a loan desirable, because they feel convinced that the Colony is not at present able to raise so large a sum of money within itself; but they are, at the same time, confident that a plan of emigration, on an extensive scale, being adopted and acted upon, will very soon enable the Colony not only to bear the interest of the loan, but ultimately to pay off the principal.

That your Petitioners, having every desire to support the administration of law and justice, and to extend the system of religious and moral instruction at present existing here, consider that Emigration, on an extensive scale, is more than anything else calculated to enable the Colony to do justice to these claims, and to pursue a liberal and enlightened course of policy.

That it is the firm conviction of your Petitioners, that a very large Emigration would not decrease the rate of wages below what it is at present; and that it is universally allowed, by all unprejudiced parties, that the labourers of this Colony, however numerically increased, could with ease earn more than sufficient to maintain themselves and their families in comfort and abundance.

That your Petitioners found their conclusion that wages will not be reduced upon the natural capabilities of the Colony, which will insure the demand for labour increasing in a much greater ratio than the supply; and, further, your Petitioners found their hopes of benefitting by Emigration, upon the certainty that, if the Colony increase in wealth and population, all classes of the community cannot fail to prosper.

That your Petitioners deeply deplore the manner in which many unfounded representations, seriously affecting the character and credit of this Colony and its inhabitants, are industriously circulated in the Mother Country, the effects of which are alike prejudicial to its prospects of improvement and commercial prosperity;

that while they strongly deprecate the erroneous impressions and views thus disseminated to their disadvantage among their fellow-subjects in Great Britain, they have no hesitation in expressing their earnest desire to court the strictest inquiry into the real situation of this Province, both as to its physical capabilities and moral condition.

Your Petitioners, therefore, approach your Majesty's Throne, and supplicate your Majesty's gracious assistance.—The importance, and even the existence, of British Guiana, as a productive Colony, depend on your Majesty. Without the speedy supply of labour, which can only be produced by means of such funds as they now propose to raise, the capital sunk in buildings, machinery, &c., will be thrown away; and the labouring population, for whose moral advancement such sacrifices have been made by Great Britain and this Colony, will speedily degenerate into a state of barbarism.

Your Petitioners therefore humbly pray—

That your most excellent Majesty may be graciously pleased to entertain with favour these your Petitioners' views in regard to the necessity of an extensive scheme of Emigration into this Colony, and, in furtherance thereof, to withdraw the restrictions at present in force against the emigration of Labourers into this Colony, from the East Indies and elsewhere, and to sanction any Ordinance to be passed by his Excellency the Governor and the Honourable the Court of Policy for the regulation of Emigration; and, further that your most excellent Majesty may be graciously pleased to allow the necessary funds to be raised by means of a loan, on the security of the Colony.

(Here follows a long list of Signatures.)

It may be as well to observe, that the following is the rate of wages and allowances given to agricultural labourers in British Guiana,—viz. one guilder, or the third of a dollar, for a task of work, which is easily performed by industrious men and women, in from four to five hours: in addition to which, they have houses, provision-grounds, medicine, medical attendance, and religious instruction, gratis; and

to encourage them to work regularly and continuously, every one who performs six tasks of work in the week, receives a small allowance of plantains or rice, some fish, sugar or molasses, and a little rum.

In confirmation of the above, I may here quote an extract of a letter (taken from the *Liverpool Mail*), from the Rev. Mr. Scott, of Demerara, a Missionary, which shows the very high rate of wages that can be earned by industrious people, and is a valuable testimony at the present moment, coming from the quarter it does.

“BLACK POPULATION OF DEMERARA.

“From the *Patriot*—a London Journal, understood to be the organ of the Baptist denomination, we quote the following extract from a letter from the Rev. J. Scott, dated Ebenezer Chapel, West Coast, Demerara, 16th February 1840. When we consider the quarter from which it emanates, it contains some rather important admissions, and should go far to open the eyes of the sober-minded and dispassionate portion of the so-called anti-slavery party, to the gross, and we might also add, wilful misrepresentations of Mr. Scoble, and other agitators, who gain a livelihood by traducing the reputation of their fellow-countrymen in our occidental colonies :—

“ ‘The blacks are now well off, indeed. The wages of a common field labourer, for a task he can accomplish with ease in less than four hours, is one guilder, or about 1s. 6d. sterling. Many of the able-bodied young men, finish two or two and a half tasks, as they are called, and therefore get two or three guilders *per diem* ; besides this, they have their houses and provision grounds, and medical advice. I speak advisedly, when I say that the earning of many of the young stout people is worth, everything considered, five or six shillings *per diem*. No class of persons on earth can have better prospects than the blacks of Demerara. They cannot fail soon to possess a large share of the property of the country—at least if they are wise. The circumstance that my people collected nearly eight hundred pounds for the cause of God, last year, is a proof they possess money, and a heart to give it. If wise men were in the management of the estates, I have no doubt

that the capitalists would still find here a better return than in any other part of the world: whites and blacks may do well if they are wise. There is a falling off in the exports last year. I knew there would; I said hundreds of times there must. Mr. Scoble, I see by the *Patriot*, accounted for this, at Manchester, by alleging the decrease of the population. This may have something to do with it, but at most it is little. Labour is paid better here than in the islands, and the poor slaves were harder driven. The transition to the state of freedom was, therefore, more sensibly felt; besides the wages are higher than in any of the other West India colonies. In no colony has there, from these causes, been so many people withdrawn from field labour. So far then as the falling off may arise from the education of young persons, and the retirement of wives and mothers to their own proper department—the management of the house—we cannot regret, and none will, except those who regard the black man only in the light of a machine to manufacture sugar. But there is no cause to fear; everything will soon find its level, and the machine will soon move without friction.’

“In relation to the above, we may remark, that at a meeting held in Liverpool, a few days ago, Mr. Scoble stated that the negroes of Demerara were only paid a guilder for a full day’s work, and persisted in his statement, although flatly contradicted by a gentleman connected with the colony, who happened to be present, and who stated the facts to be pretty much to the same effect as set forth in the above extract. Being the corroborative testimony of one of his own party, we suspect Mr. Scoble will now begin to think that he has ‘overshot his bird bolt.’ We have no doubt that truth will ultimately prevail; but to keep up a systematic warfare against the character of our West India colonists, can only tend to increase the horrors of the slave trade, and perpetuate slavery in other quarters of the world, by cramping the energies of the British government in their efforts to bring to a successful consummation the great experiment of negro emancipation.”





SKETCH MAP OF
BRITISH GUIANA.

by
ROBERT H. SCHOMBURGK ESQ^{re}

Boundary as claimed by Great Britain.

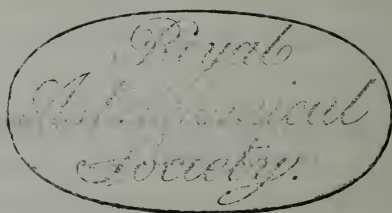
- D° by Venezuela
- D° by Brazil

A DESCRIPTION
OF
BRITISH GUIANA,
GEOGRAPHICAL AND STATISTICAL:
EXHIBITING
ITS RESOURCES AND CAPABILITIES,
TOGETHER WITH
THE PRESENT AND FUTURE CONDITION AND PROSPECTS
OF THE COLONY.

BY
ROBERT H. SCHOMBURGK, Esq

LONDON:
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1840.



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RED LION COURT, FLEET STREET.

THE object of the present work is to give an account of whatever relates to the physical structure, natural productions, and present and future capabilities of the colony of British Guiana, including the statistical information I have been able to procure. The result of my personal examinations in the course of my expeditions of discovery during successive years from 1835 to 1839, is offered in a spirit of strict impartiality. The pursuit of science alone led me to Guiana, and if by my statements of facts the interest of the province, as a British colony, is advanced, my object is attained.

Though the accompanying map is incomplete, many of its details resting on information procured from the natives, yet the greater portion has been laid down from my own personal observations, and offers a correct view of the facilities which the numerous rivers and their tributaries afford for internal navigation, and will show how important it is to the colony that its boundaries should be more clearly defined than at present, and freed from the encroaching claims of the adjacent states, which, if admitted, would deprive British Guiana of the greater part of her most valuable territory.

ROBERT H. SCHOMBURGK.

London, May 1840.

CONTENTS.



I.

| | |
|---|----|
| GEOGRAPHICAL DESCRIPTION | 1 |
| Physical Aspect of the Colony | 3 |
| Geology | 7 |
| Rivers | 11 |
| Climate | 17 |
| Vegetable Productions | 28 |
| Animal Kingdom | 37 |
| Statistics of British Guiana..... | 41 |
| Inhabitants | 42 |
| Religious and Public Instruction..... | 52 |
| Public Income and Expenditure | 57 |
| Staple Products and Commerce | 60 |
| Form of Government, Civil Constitution, &c., of the Colony | 69 |
| Towns and Villages | 73 |
| Brief Historical Records of the present Colony of British Guiana | 81 |

II.

| | |
|--|----|
| RESOURCES AND CAPABILITIES OF BRITISH GUIANA | 88 |
|--|----|

III.

| | |
|---|-----|
| THE PRESENT CONDITION AND FUTURE PROSPECTS OF THE COLONY | 118 |
|---|-----|

DESCRIPTION OF GUIANA.

I.

GEOGRAPHICAL DESCRIPTION.

GUIANA*, Guyana, Guayana, or Guianna, is that part of South America which lies between $8^{\circ} 40'$ N. lat. and $3^{\circ} 30'$ S. lat. and the 50th and 68th degree of longitude, west of Greenwich. It is bounded on the north by the Atlantic and the eastern course of the river Orinoco, on the east likewise by the Atlantic, on the south by the rivers Negro and Amazon, on the west by the northern course of the Orinoco, the natural canal of Cassiquiare, and the southern course of the Rio Negro. Its greatest extent between

Names and
boundaries
of Guiana.

* The British portion is called Guiana in official documents; Guayana is the Spanish name, Guianna the Portuguese. The earliest Dutch settlers called it Guiana, or the wild coast. It is said to have received its name from a small river, a tributary of the Orinoco.

Cape North, and the confluence of the Rio Xie with the Rio Negro, is 1090 geogr. miles ; its greatest breadth between Punta Barima, at the mouth of the Orinoco, to the confluence of the Rio Negro with the Amazon, 710 geogr. miles. Its line of sea-coast extends between the Amazon and the Orinoco, and is divided into Brazilian, French, Dutch, British, and Venezuelan Guiana, but its definite limits have never been obtained. All that has hitherto been done, between Spain, Portugal, and France, is regarded as only provisional, and the boundary which separates the British settlements from Venezuela and Brazil has never been determined.

British
Guiana, un-
determined
state of its
boundaries.

The following description is limited to those parts which comprehend British Guiana ; but the exact knowledge of its area depends upon the determination of its boundaries ; and in the uncertainty whether the pretensions of the Brazilian and Venezuelan governments will be attended to, it is impossible to come to a result. Some modern geographers extend British Guiana from the mouth of the Corentyn in $56^{\circ} 58'$ W. long. to Punta Barima in $60^{\circ} 6'$ W. long.; in consequence of the early Dutch settlers having had occupation of the eastern bank of the river Barima, where they had constructed a military outpost, before the English in 1666 had destroyed the fort of New Zealand, or New Middleburgh. The Republic of Venezuela claims the country to the mouth of the river Morocco, from thence to the confluence of the rivers Cuyuni and Mazaruni, along the western bank of the river Essequibo, to the confluence of the river Rupununi. The Brazilians having lately claimed as far north as the mouth of the Siparunus, its area would then be reduced to about 12,300 square miles, and it would form the smallest of the three colonies in Guiana, which

Area.

are possessed by European powers*. If we follow the limits which nature prescribes by its rivers and mountains, and include all the regions which are drained by the streams which fall into the Essequibo within the British territory, and adopting the river Corentyn as its eastern boundary, the counties Demerara, Essequibo, and Berbice, which constitute British Guiana, consist of 76,000 square miles.

Physical Aspect of the Colony.

The banks and low lands adjacent to the chief rivers of British Guiana, namely the Essequibo, Demerara, Berbice, and Corentyn, consist of a blue clay, impregnated with marine salt mixed with decayed vegetable matter, which in its decomposed state forms rich mould and is highly productive. This alluvial flat extends from ten to twenty, and in some instances (as between the rivers Berbice and Corentyn,) even to forty miles inland, and is terminated by a range of sand-hills, from about 30 to 120 feet high, which approach the sea within two miles of the Arabisi coast of the Essequibo; if we follow them upwards from that point, they take first a S.E. by S., and afterwards a S.E. direction, traversing the whole colony. Almost parallel with the ridge of sand-hills run several detached groups of hillocks, of moderate elevation, being seldom more than 200 feet high; they cross the river Essequibo at Osterbecke Point, in lat. $6^{\circ} 15' N.$, the Demerara at Arobaya, in $6^{\circ} 5'$, the Berbice in 5° .

Coast regions.

Sand hills and hillocks.

In the fifth parallel of latitude a chain of mountains is met with, which consists of granite, gneiss, and trappean

Mountains.

* It is called the smallest European colony in Guiana, in the Dictionnaire Géographique Universel, Paris, 1828, vol. iv. p. 615, where the area is stated to consist only of 3120 leagues.

rocks, and their various modifications; they are an offset of the Orinoco mountains, with which they are connected by the Sierra Ussipama of geographers; they traverse Guiana in a south-eastern direction, and may be considered the central ridge of the colony. Whenever this chain crosses any of the rivers which have been under my investigation, it forms large cataracts, namely, those of Twasiniki and Ouropocari in the Essequibo, Itabrou and the Christmas cataracts in the river Berbice, and the great cataracts in the river Corentyn. The highest peak appear to be the mountains of St. George, at the Mazaruni, the Twasinki, and Maccari on the Essequibo (the latter rising about 1100 feet above the river), and the mountains of Itabrou, on the river Berbice, the highest of which, according to my barometrical admeasurement, was 662 feet above the river, and 828 feet above the sea. This chain appears to be connected with the Sierra Acarai by the Marowini mountains, and I am inclined to consider it the old boundary of the Atlantic, the geological features of the chain conducing to such a supposition. Further north commence hillocks of a lower elevation, and those ridges of sand the consequence of a retreating sea.

Pacaraima
mountains.

The mountains of Pacaraima approach the Essequibo in lat. 4° N., and are an offset of the Sierra Parima; their general direction is east and west, and as far as I have been able to ascertain, they consist only of primitive formation.

Roraima.

The culminating point of this chain is a range of sandstone mountains, of which the highest is called Roraima by the Indians, in lat. $5^{\circ} 9' 30''$ N., long. $60^{\circ} 47'$ W. This remarkable mountain group extends twenty-five miles in a north-west and south-east direction, and rises to 5000 feet above the table-land, or 7500 feet above the sea;

the upper 1500 feet presenting a mural precipice, more striking than I have ever seen elsewhere. Down the face of these mountains rush numerous cascades, which eventually form tributaries to the three great rivers of the northern half of South America; namely, the Amazon, the Orinoco, and the Essequibo. These mountains form the separation of waters of the basins of the Orinoco and Essequibo on the north, and the Amazon on the south, and they are therefore of the greatest importance in deciding the boundary of British Guiana.

The mountain Makarapan was formerly considered the highest point in Guiana, before I visited the Roraima mountains. This mountain approaches the river Rupununi in $3^{\circ} 50' N.$ lat., and rises to a height of about 3500 feet above the sea. Makara-pan.

The Cannucu or Conocon mountains, in $3^{\circ} N.$ lat., connect the Pacaraima mountains with the Sierra Acarai, in which the largest river of Guiana, the Essequibo, has its sources. The Acarai mountains likewise give rise to the river Corentyn, and form the southern boundary of British Guiana. I shall designate them as the mountains of the equator, that imaginary line cutting their axis. They are densely wooded, and display the vigorous and luxuriant vegetation which is the striking feature of Guiana. These mountains do not reach the height of the Roraima; I estimated the highest at about 4000 feet. The Ouangouwai, or Mountains of the Sun, form the connecting link between the Acarai and Carawaimi mountains; the Tarapona mountains between the latter and the Cannucu and Pacaraima mountains. Cannucu and Acarai Mountains.

A peculiar feature of British Guiana are the savannahs, which extend between the rivers Demerara and Corentyn, and approach the sea-shore at the river Berbice. They are not directly connected with the great savannahs of Savannahs.

the Rupununi, as the second ridge of mountains intervenes. These great savannahs are encompassed by the Sierra Pacaraima to the north, the Cannucu, Taripona, and Carawaimi mountains to the south, the thick forests of the Essequibo and isolated mountains to the east, and the mountains of the Mocajahi, and offsets of the Sierra Parima to the west*. The winding course of the rivers are generally marked with fringes of trees; and, if we except in some places tufts of trees which rise like verdant isles or oases in a desert from amidst these plains, they are merely covered with grasses and a few stunted trees.

The geological structure of this region leaves but little doubt that it was once the bed of an inland lake, which by one of those catastrophes, of which even later times give us examples, broke its barrier, forcing for its waters a path to the Atlantic. May we not connect with the former existence of this inland sea the fable of the lake Parima and the El Dorado? Thousands of years may have elapsed; generations may have been buried and returned to dust; nations who once wandered on its banks may be extinct, and exist even no more in name: still the tradition of the lake Parima and the El Dorado survived these changes of time; transmitted from father to son, its fame was carried across the Atlantic, and kindled the romantic fire of the chivalric Raleigh.

These Savannahs are the probable site of the lake Parima and El Dorado.

Lake Amucu.

This tract contains the lake Amucu, which in the dry season is of small extent and overgrown with rushes; but during the rainy season it not only inundates the adjacent low countries, but its waters, as I have been assured by the Indians, run partly eastward into the Rupununi, and partly westward into the Rio Branco. The small river Pirara has its sources somewhat south of lake Amucu, flowing through it towards the Rio Mahu. On

Pirara.

* They occupy about 14,400 square miles.

the banks of this small lake stands the Macusi village Pirara. With the exception of these savannahs, and the swamps of the river Berbice, the interior is thickly wooded, the forests consisting mostly of useful timber trees.

The large rivers with which the colony is intersected continually bring down quantities of detritus. The land at the mouths of these æstuaries is therefore on the increase, forming a fringe of low ground, which is soon covered with Mangroves (*Rhizophora Mangle*) and Courida Bushes (*Avicennia nitida*); it is the first step of the shore's encroachment upon the sea. The sandy flat extends from twelve to fifteen miles to seaward, and in proportion as its distance from shore increases, it is covered with from three to four feet of water. These outskirts of new land may, it is more than probable, be hereafter gained from the sea, and form a valuable addition to the productive land. It has within the recollection of many advanced considerably, though in absence of precise data the yearly progress cannot be ascertained.

Geology.

The geology of British Guiana presents phænomena that are in accordance with what has been observed in the eastern hemisphere; the alluvial soil and clays, of which the strata along the sea-coast consists, rest upon granite; and it is to be observed as a remarkable feature, that masses which have been discovered by boring for water, at a depth of 100 feet on the coast, are to be seen at a distance of 150 miles *in situ*.

The alluvial flats are in many instances covered with a black vegetable matter, the detritus of the numerous rivers of Guiana, committed during the periodical rains to their current, and swept towards their æstuaries, where the tides have caused it to be deposited. The atmo-

spheric air has assisted in its decomposition, and it forms now a carbonaceous vegetable matter, vulgarly called *pegass*. On the Arabisi coast of the river Essequibo, and in the vicinity of the Pomeroon, it is often found to have a depth of five to six feet.

At Ampa in the river Essequibo, a distance of about fifty miles from George Town, is an extensive bed of granite with hornblende; it has a south-western direction, appearing again at the site of the old post, in the river Mazaruni. This granitic bed has become of advantage to George Town, where it is much used for building material. A dyke, consisting of greenstone, traverses the Essequibo, and forms the first cataract in $6^{\circ} 11' \text{ N. lat.}$; it is called Aritaka. The rocky regions commence now, denoting primitive formation in all its component parts: granite, porphyry, and other of the extensive family of trappean rocks, may be traced at the base and on the top of the mountains. A peculiar feature are large tracts of boulders, mostly of granite, which are more or less accumulated in particular places, sometimes with great confusion; and which, wherever they traverse the rivers, form rapids and cataracts. They assume their grandest feature in that tract which is called Achra Moucra in the river Essequibo, in $\text{lat. } 4^{\circ} 20'$. Veins of quartz frequently traverse the great masses of granite; and vast tracts of brown iron ore are met with in the mountains and the flats which extend between the rivers, from the admixture of which the soil receives a reddish tinge. This is chiefly the case in the savannahs on the Rupununi, which are frequently covered with black shining pebbles. In the vicinity of Roraima rock-crystals are found in the form of hexagonal columns, sometimes solitary, sometimes apparently agglutinated: they grow out of beds of sandstone, are perfectly transparent, and generally terminate

in a single pyramid, with from three to six faces. The leading features of the mountainous regions are coloured ochres, indurated clays, granite-gneiss, and trappean rocks, and a total absence of limestone or its modifications.

Mr. Hillhouse, in his voyage up the Mazaruni, observed at some distance a conical peak, resembling the crater of a volcano*.

Volcanoes
and mineral
springs.

There is a tradition that a volcano still in action exists up the river Siparuni, and it is mentioned by Hartzink that it had been discovered in 1749†. Though I attempted repeatedly to procure information on this subject, when in those regions, I did not succeed. If, therefore, an active volcano existed, it is probable that it is now extinct. The Indians of Pirara told me that there was, on the south-western angle of the Sierra Pacaraima, a mountain whence, from time to time, detonations are heard.

Earthquakes are very seldom felt in Guiana, and the shocks are but slight; if therefore the connexion between volcanoes and earthquakes be admitted, the rarity and slowness of the shocks do not point to the circumstance that volcanic phænomena find much fuel in Guiana. Major Staple, well known for his experiments, and in many instances for his great success in obtaining fresh water in George Town by boring, discovered a mineral spring on his own premises in Cumingsburgh, which is strongly impregnated with iron. I have frequently met with springs in the interior which were more or less impregnated with that metal, sometimes so strongly that the water was of an ochreous colour, but none which possessed thermal waters.

Guiana is not devoid of phænomena which are of interest to the geologist, and which add to the picturesque and magnificent scenery of that colony. The greatest

Geological
phænomena.
Ataraipu,
the natural
pyramid.

* Journal of the Royal Geographical Society, vol. iv. p. 32.

† Hartzink Beschryving van Guiana, vol. i. p. 266.

geological wonder of Guiana is no doubt Ataraipu, which, with full right, may be called a natural pyramid, far surpassing in height and grandeur the Egyptian piles constructed by the labour of man.

The Ataraipu is on the western bank of the river Guindaru in $2^{\circ} 55'$ N. lat. Its base is wooded for about 350 feet; from thence rises the mass of granite, devoid of all vegetation, in a pyramidal form for about 550 feet more; making its whole height about 900 feet above the river.

Pourae-
piapa.

A column fashioned by nature, and compared by the Indians to the trunk of a crownless tree, is called Pourae-piapa, or "the felled tree," and is of great interest. It occupies the summit of a small hillock at the outskirts of the Pacaraima mountains, and is about twenty-five miles N.N.W. from the Macusi village of Pirara. This column, the regular form of which would cause any one who viewed it at some distance to suppose it to be the trunk of a decayed tree, is about fifty feet high.

Comuti or
Taquiare.

Two gigantic piles of granite rise on the western banks of the Essequibo, from the declivity of a hill to a height of about 140 to 150 feet. The Comuti or Taquiare consists of a huge boulder of granite, surpassing in size the celebrated pedestal of the statue of Peter I.; on this rests an oval piece of granite, which bears a third in the shape of a jar; it is covered by a fourth, and the resemblance of the two latter to a water-jar with its cover is so great, that the Indians have called it Comuti or Taquiare, which in the language of the Arawaaks and Caribs signifies respectively a jar.

Kamai.

The second pile is called Kamai, which signifies the tube or strainer which is used for expressing the juice of the cassada root, before it is made into bread.

Roraima.

The mural precipices of Roraima, which I have already mentioned, deserve the notice of every geologist and lover of the picturesque. They are not only remarkable for

their structure, but from the cascades—the highest known, viz. 1400 to 1500 feet—which descend from them.

There are many more remarkable structures which deserved notice, if the limits of this work permitted their description;—the tracts of huge granite boulders; mountains several thousand feet high, consisting of solid granite, covered scarcely with any vegetation; the great cataracts of the rivers Corentyn, Berbice, Essequibo, which, although they offer impediments to navigation, we cannot help admiring as lovers of the picturesque.

Rivers.

The great rivers or outlets of British Guiana which drain the colony between the 57th and 60th meridian, and from the 7th parallel to the equator, are, commencing from the westward, the Essequibo, the Demerara, the Berbice, and the Corentyn.

The ESSEQUIBO* is the largest river of Guiana, and receives its origin in the Acarai mountains, forty-one miles north of the equator, from whence, for the first sixty miles, its general course is north-east, meandering in short turns through a rich mountain valley; it divides frequently into branches, and numerous rivulets flow from the mountains into its bed. During inundations its waters rise here from twenty-five to thirty feet above its banks. It receives the Canerua and Wapua from the south-east, the Camoa or Ouangou from the south-west. Having passed the Ouangou mountains, which rise on its eastern shore to a height of 3000 feet, and form the northern angle of the Acarai mountains, its

Essequibo.

* The Essequibo is said to have received its name from Don Juan Essequibel, an officer under Diego Columbus. At its lower course it was called by the Indians who inhabited the coast 'Aranauma.' The Tarumas call the upper Essequibo 'Coatyang Kityou,' the Macusis and Caribees 'Sipou.'

course is north to the confluence of the Cassi Kityou or Yuawauri, which joins the Essequibo from the south-west. The sources of the Cassi Kityou are said to be in the vicinity of those of the Uanahau, a tributary of the Rio Branco. From this point it runs in a north-east direction, and receives in $2^{\circ} 16' \text{ N. lat.}$ its largest tributary south of the Rupununi, the Cuyuvini, which has its sources at no great distance from those of the Rupununi, but on the eastern foot of the Carawaimi chain. The Essequibo follows now a north-western course, and is for the next seventy miles so much impeded by cataracts, that it is even not navigable for the small canoes of the natives. It forms in $3^{\circ} 15' \text{ N. lat.}$ a large cataract called William the Fourth's Cataract. The river is here narrowed in by mountains to about fifty yards, and precipitates itself with great force over two ledges of rock about twenty-four feet high; and adopting a north-by-west direction, it receives

Rupununi. in $4^{\circ} \text{ N. lat.}$ the Rupununi, a large river which has its sources in a savannah at the western foot of the Carawaimi mountains. It forms in $2^{\circ} 39'$ a cataract; and meandering through the savannahs it passes the Saeraeri mountains, and flows northward through the Cannucu, until the Sierra Pacaraima, in the vicinity of the mountain Annai, turns it to the east. It receives previously, in $3^{\circ} 37' \text{ N. lat.}$, the stream Awaricuru or Waaecuru from the south-west; by which, and its tributary the Quattata, the Pirara may be reached, which latter river belongs to the basin of the Amazon. Having passed the southern foot of the mountain Makarapan, the Rupununi receives from the south its largest tributary, the Roiwa or Rewa, and joins in $\text{lat. } 3^{\circ} 59' \text{ N.}$ the Essequibo. The course of the Rupununi is about 220 miles; it flows mostly through savannahs, and its waters are white. After its junction with the Essequibo, the latter continues in a north-western

direction, forming the cataract Orotoko, and receives in lat. $4^{\circ} 46'$ N. the River Siparuni or Red River from the south-west. In its further course the Camuti and Twasinki mountains cause it to describe almost the figure S, and it is impeded by several rapids and numerous islands. The river Potaro or Black River joins the Essequibo, from the south-west, a few miles below the cataract of Waraputa. By the Potaro and a short land-passage the Indians reach the river Mazaruni. From the hills Oumai to Point Saccaro it turns now for sixty miles due-north; while its tributary, the Mazaruni, twelve miles to the westward, and the river Demerara fifteen miles to the eastward, hold a parallel course for the same distance. Fifty miles from its mouth occur the last rapids, which prevent the tide and sailing vessels from ascending any further. About six miles north-west from Saccaro it receives the waters of the united rivers Mazaruni and Cuyuni, which at the point of junction are about a mile wide.

Mazaruni
and Cuyuni.

The junction of the Mazaruni and Cuyuni takes place eight miles west of their confluence with the Essequibo. Opposite their confluence, but in the Mazaruni, is the small island Kyk-oér-all, where the Dutch in former times erected a fort against the incursions of the Spaniards. The Mazaruni is only navigable for small sailing vessels to the island of Caria; further south commence the rapids, which are no doubt caused by the same ledge of rocks that form the Aritaka rapids in the Essequibo*. The Cuyuni runs from its confluence with the Yuruario east and west. The Essequibo continues

* Mr. Hillhouse, who has ascended the Mazaruni and the Cuyuni to a considerable distance, found both rivers much impeded by rapids and cataracts. I suppose the Mazaruni has its sources in about 5° N. lat.; the course of the rivers Mahu, and Siparuni, and the situation of Roraima, cause me to form such an opinion.

its northern course, growing continually wider until at its mouth it forms an æstuary nearly twenty miles wide (according to others only fifteen). In its wide æstuary there are numerous islands, some of which are of considerable extent. The cultivation of Hog Island, which is about fifteen miles long, is restricted to its northern point. Wakenaam, of equal length, and Leguan, about twelve miles long, are however in a high state of cultivation. Tiger Island, the most western in the mouth of the Essequibo, is less cultivated.

The entrance of the Essequibo is much impeded and rendered dangerous for navigators by many shoals and sand-banks which extend to seaward. The best and safest of the four channels formed by the three islands is between the east shore and the Island Leguan, which has a depth of from two to four fathoms. According to the volume of water which there is in the river, the current is more or less strong; but it is seldom more than four knots, even during the rainy season. The course of the Essequibo, taking its windings into account, is not less than 620 miles, exceeding in length any river in France, and vying with the Vistula in Poland.

Demerara
river.

East of the Essequibo and parallel to it is the DEMERARA or DEMERARY, having its sources probably in that small group of mountains which approach the Essequibo in $4^{\circ} 28'$ N. lat. and are called Maccari. Its upper course is only known to the Indians. At $5^{\circ} 19'$ N. lat. it forms a great cataract, impassable even for canoes, which the Indians convey here overland until the river is again unimpeded. The last rapids (Kaicoutshi Rapids) are a distance of about eighty-five miles in a straight line from Georgetown, to which point it is navigable for vessels of smaller size. A square-rigged vessel has been known to load timber at Lucky Spot (in $5^{\circ} 57'$ N. lat.), about seventy-five miles,

(the windings included,) from the river's mouth. Towards its mouth it widens to a mile, and where it enters the sea it is more than a mile and half across. A bar of mud extends about four miles to seaward, with only nine feet of water at half-flood, but the channel along the eastern shore has nineteen feet of water at high-tide. The river's average current is about $2\frac{1}{2}$ knots; it sweeps, however, with much more strength at the anchorage at Georgetown, where, assisted by the reflux of the tide, it has been known to reach a velocity of seven knots in an hour, or 11.9 feet in a second. The Demerara, running parallel between the Essequibo to the west and the Berbice to the east, does not receive any tributaries of magnitude; the tide extends about seventy-five miles in a straight line from its mouth.

The river **BERBICE** discharges itself into the Atlantic about fifty-seven miles to the east of the Demerara; its source is probably near the third parallel of latitude. In its upper course it approaches so near to the Essequibo that the direct distance in $3^{\circ} 55' N.$ lat. amounts only to nine miles. It takes from hence a north-western course, sometimes narrowing to thirty feet, at other times spreading into lake-like expansions; its banks are low and frequently marshy. The river is studded with boulders.

Berbice
river.

In lat. $4^{\circ} 19' N.$ and about seven miles further north commence the cataracts and rapids, which impede the river for upwards of fifty miles; the last cataract is in $4^{\circ} 50' N.$ lat., and the river is now free for boat navigation. Where the fifth parallel crosses its course it follows a north-eastern direction to its outflow into the Atlantic. It is navigable for vessels which draw not more than twelve feet water to lat. $5^{\circ} 20'$, upwards of 105 miles, according to the river's winding course; vessels of seven feet draught may ascend it for 165 miles, measured along

its numerous windings. The influence of the tide is perceptible nearly to that distance.

Corentyn.

The river CORENTYN, or COURANTIN, forms the boundary between the Dutch and British possessions, and has its source in the same mountain-chain as the Essequibo ; probably in 1° N. lat. and about twenty-five miles east of the source of the Essequibo. The river, finding its course impeded by the same tract of boulders which cut the rivers Essequibo and Berbice, expands and forms in $4^{\circ} 20'$ a series of formidable cataracts, which in grandeur and picturesque scenery surpass any other in British Guiana. The river runs from hence north and north-east until it reaches 5° N. lat. where for about forty miles it turns west, receiving the river Cabalaba from the south ; it is navigable to this point for boats that draw not more than seven feet water, a distance of about 150 miles from the sea, measured along its windings. It turns now northwards, and is so tortuous that in one instance,—namely from the mouth of the river Paruru to the river Maipuri—it describes almost a circle, the distance agreeably to the course of the river being twenty miles, while across the Savannah it is only $1\frac{3}{4}$ miles. It enters at Oreala, forty-five miles in a direct line from the embouchure, in the low plain. At Baboon Island it turns for fifteen miles north-west, assuming afterwards an almost due-northern course to its embouchure, during which distance it has a breadth of four miles. It forms in $5^{\circ} 55'$ N. lat. an æstuary impeded by sand and mud banks, with navigable channels between. The breadth of this æstuary between the Plantation Mary's Hope and Nickeri, which is considered the mouth of the Corentyn, is in a north-west and south-east line ten miles ; others consider Gordon's Point and the Plantation Alness as the extreme points of the mouth of the Corentyn ; which would give a breadth of upwards of

eighteen geographical miles across. The windward channel is the deepest for entering the Corentyn; it has $8\frac{1}{2}$ feet water at low water, and the tide rises $8\frac{1}{2}$ feet at springs, and 3 feet at neap. On the western shore is a sand-bank with 7 feet water at low tide.

The Corentyn, before entering the sea, receives on its eastern shore the river Nickeri: at its mouth and on its right bank is the Dutch Settlement Nickeri, with a battery and garrison of 120 men, regular troops.

Between the Essequibo and Orinoco are the rivers Pomeroon, Marocco, and Wai-ina or Guayma; and although these outlets are comparatively of small size, they are so closely connected by branches and tributaries, that they afford an inland navigation from the Marocco to the Orinoco. Their importance in a political and commercial respect becomes therefore evident.

Between the Demerara and the Berbice are the small rivers Mahaica, Mahaiconi, and Abari.

Between the Berbice and Corentyn there is at present no outlet: the "Devil's Creek," which the Dutch claim as their boundary, is completely choked up by sand, and was when in existence merely the outlet of the swampy ground behind the sea-coast in that region.

Climate.

Though Guiana is situated in the torrid zone, it enjoys comparatively a more temperate climate than other countries under the same latitude. The mean temperature for the year is $81^{\circ}2$, the maximum 90° , the minimum 74° . It is generally considered that two wet and two dry seasons constitute the changes during the year. However regular the setting-in of these periods may have been formerly, this has not been the case during

Pomeroon,
Marocco,
and Guay-
ma.

Mahaica,
Mahaiconi,
Abari.

General de-
scription of
the annual
changes.

later years*. The great dry season commences at the coast regions towards the end of August, and continues to the end of November, after which showers of rain follow to the end of January: the short dry season commences in the middle of February, and continues to the middle of April. The rains descend afterwards in torrents, and the rivers commence to inundate their shores. During that period the wind is frequently from the west and south-west, and, coming from the land, is thought unhealthier than the regular sea-breeze, which during the dry season begins to set in between ten and eleven A.M., and continues until sunset, sometimes even through the night. The months of October and November are the most delightful in the year; the sky cloudless, the heat moderate, and the thermometer at noontide scarcely higher than 85° Fahr. During the rainy season the oppressive weight of the atmosphere is tempered by northern breezes, and in the months of September to November the breezes from the east and south-east, which have passed over a vast extent of the ocean, are invigorating, and refresh the air to such a degree, that during the night the thermometer has been known to fall to 74° Fahr.

The moisture necessary to maintain vegetation is then replaced by dew; and not only in the interior, where the country is not extensively cleared, but likewise in the open savannahs, the trees and plants will be found in the morning dripping with dew.

* The change is equally uncertain in the interior, and the expedition which I had the honour to command was six weeks longer delayed in the interior in 1839, there not being sufficient water in the rivers to navigate them. The Rio Negro, whose rise is generally considered to commence in the beginning of March, did not rise until April, and at the large savannahs the rain only set in that year in May.

The change of the seasons is marked by severe thunder-storms; but however loud the peals of thunder may reverberate, and however vivid the flashes of lightning which precede them, fatal accidents by lightning are unknown in Guiana. Gales are scarcely known, much less those terrific phænomena of nature hurricanes, which in the neighbouring islands destroy in a brief time the fruits of many years' labour, causing devastation and loss of life to a vast extent.

A few shocks of earthquake are occasionally felt, but they are so insignificant that the inhabitants scarcely notice them when they occur.

The temperature of the interior is still more mild, and the climate healthy. The season in the interior is only marked by two changes; from the month of August to the month of March there are only occasional showers, but from March to August the rain descends in torrents, and the rivers commence to swell and overflow their banks, to a greater or less extent according to their locality.

The following meteorological register was noted in Georgetown, and has been politely communicated to me.

Meteorological Tables kept in Georgetown and in the interior.

| Month. | BAROMETER, in English inches and decimals. | | | | THERMOMETER. Fahrenheit. | | | |
|-------------|---|---------|--------|-----------------|-----------------------------|---------|--------|-----------------|
| | Highest. | Lowest. | Mean. | Greatest Range. | Highest. | Lowest. | Mean. | Greatest Range. |
| January ... | 29.99 | 29.84 | 29.912 | .15 | 85 | 75 | 80.225 | 10 |
| February .. | 29.97 | 29.83 | 29.890 | .14 | 86 | 75 | 79.69 | 11 |
| March. | 30.05 | 29.86 | 29.959 | .19 | 85 | 75 | 80.35 | 10 |
| April | 30.00 | 29.84 | 29.911 | .16 | 86 | 78 | 81.7 | 8 |
| May | 30.02 | 29.85 | 29.927 | .17 | 86 | 75 | 81.10 | 11 |
| June | 30.02 | 29.86 | 29.942 | .16 | 86 | 76 | 81.166 | 10 |
| July | 30.00 | 29.85 | 29.938 | .15 | 86 | 76 | 80.964 | 10 |
| August | 30.04 | 29.83 | 29.949 | .21 | 89 | 78 | 82.532 | 11 |
| September | 30.00 | 29.74 | 29.878 | .26 | 88 | 79 | 83.316 | 9 |
| October ... | 29.99 | 29.80 | 29.904 | .19 | 89 | 78 | 83.5 | 11 |
| November. | 29.96 | 29.77 | 29.883 | .19 | 90 | 77 | 82.366 | 12 |
| December. | 30.01 | 29.82 | 29.905 | .19 | 87 | 75 | 80.19 | 12 |

The annual result is therefore as follows :

| BAROMETER. | | | | THERMOMETER. | | | |
|------------|---------|--------|-----------------|--------------|---------|--------|-----------------|
| Highest. | Lowest. | Mean. | Greatest Range. | Highest. | Lowest. | Mean. | Greatest Range. |
| 30.05 | 29.74 | 29.916 | 31 | 90 | 75 | 81.226 | 15 |

By a daily register of the temperature of the air in the shade between 6^h A.M. and 6^h P.M., and between the parallels of 2° 36' and 6° 49' N. lat. I received from October 1835 to March 31st 1836 the following data :

| FAHRENHEIT'S SCALE. | | | | | | | |
|---|------|------|------|------|------|------|--------|
| | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Total. |
| Highest | 87.5 | 89 | 86.5 | 88.9 | 85.9 | 84 | ° |
| Mean | 79.1 | 82 | 80.1 | 82 | 81 | 76.5 | |
| Lowest | 68 | 72 | 68.5 | 75 | 74 | 69 | |
| Number of rainy days with little intermission | *12 | 2 | 11 | 6 | 12 | 27 | 70 |
| Days with little rain | 9 | 10 | 11 | 16 | 12 | 4 | 62 |
| Fair without rain | 10 | 18 | 9 | 9 | 5 | 0 | 51 |

The mean of observations at 6^h and 9^h A.M., 12^h, 3^h and 6^h P.M., in 1838, during a stay of three months in Pirara, situated in the middle of the savannahs on the banks of the lake Amucu, in lat. 3° 39' N., long. 59° 16' W., and 600 feet above the level of the sea, give the following results :

| Month. | BAROMETER, in English inches and decimal parts. | | | | THERMOMETER. Fahrenheit's scale. | | | |
|-------------|--|---------|--------|-----------------|-------------------------------------|---------|-------|-----------------|
| | Highest. | Lowest. | Mean. | Greatest Range. | Highest. | Lowest. | Mean. | Greatest Range. |
| April | 29.500 | 29.286 | 29.394 | .214 | 93.5 | 73 | 82.3 | 20.5 |
| May | 29.500 | 29.292 | 29.410 | .208 | 91 | 73.5 | 81 | 17.5 |
| June | 29.496 | 29.310 | 29.429 | .186 | 90 | 73.5 | 81.07 | 16.5 |

* It will be necessary to remark that the years 1835 and 1836 were considered to be more rainy than usual; this observation refers likewise to the coast-regions.

These observations were continued during the months of July and August at Fort São Joaquim do Rio Branco, in lat. $3^{\circ} 1' N.$ and long. $60^{\circ} 3' W.$, and gave the following results :

| Month. | BAROMETER, in English inches and decimal parts. | | | | THERMOMETER. Fahrenheit's scale. | | | |
|-------------|--|---------|---------|-----------------|-------------------------------------|---------|-------|-----------------|
| | Highest. | Lowest. | Mean. | Greatest Range. | Highest. | Lowest. | Mean. | Greatest Range. |
| July..... | 29·722 | 29·500 | 29·6211 | ·222 | 86·5 | 74·8 | 80·69 | 11·7 |
| August..... | 29·730 | 29·500 | 29·6178 | ·230 | 88 | 76 | 82·16 | 12 |

The night is generally from 8° to 10° cooler than the day. A greater difference prevails however at the table-land, from which Roraima rises to a height of 7000 feet; there I have known a difference of 35° in the range of the thermometer, compared at the hours of five in the morning and two in the afternoon. At this table-land, which was only elevated about 3000 feet above the sea, the thermometer half an hour before sunrise ranged between 59° and 62° , and rose between two and three o'clock in the afternoon to 95° in the shade.

When the heat of the air is greatest, the temperature of the water in the rivers is at its lowest comparative point; and during night, but chiefly towards sunrise, the water is about 10° warmer than the air. The Indian takes his customary bath generally in the morning, when the water is most congenial to the feelings. A number of experiments have shown me that

- at 6^h A.M. the water is generally from 8° to 10° warmer than the air.
- at 2^h P.M. the air is generally from 1° to 2° warmer than the water.
- at 6^h P.M. the water is generally from 2° to 3° warmer than the air.

The climate of British Guiana has been described as unhealthy, and detrimental to European settlers; consequently emigrants have rather preferred encountering

Temperature of the running waters.

Influence of the climate on the health of the inhabitants.

the chilly blasts and severe winters of Canada and the United States, or to subject themselves to the horrors of a prolonged voyage to Australia, there to suffer expatriation perhaps for ever from their native homes and families, than to settle in a colony where constant summer prevails, and which, with the nigh establishment of regular steam-boats to those parts, may be reached in sixteen or seventeen days from England.

But by a comparison of facts, it may be demonstrated that the climate of British Guiana ensures as great a duration of life as that of many European countries. It has been proved "that the range of mortality even among the labouring population, is about one in thirty-seven to forty, but in London and France it is equal as regards the whole population, rich and poor, and in other countries it is even more: thus in Naples one in thirty-four; Wirtemberg, one in thirty-three; Paris, one in thirty-two; Madrid, one in twenty-nine; Rome, one in twenty-five; Amsterdam, one in twenty-four; Vienna, one in twenty-two and a half: and a comparison of the mortality in Demerara and the healthy county of Rutlandshire in England, proves that duration of life is in favour of the colony*."

The fatal cholera which committed such destruction in Asia, Europe, and America, and which in Quebec carried to the grave a tenth of its whole population, was never felt in Guiana, neither was the influenza or the grippe.

The endemic disease in 1837 to 1839.

When physicians were unacquainted with the proper method of treating the yellow fever, many Europeans fell victims to that disease. Medical men are at present more successful in its treatment, and for many years it had totally disappeared. After an interval of fifteen years it showed itself again in 1837, and was evidently to be

* Montgomery Martin's History of the West Indies, vol. ii. p. 33-34.

ascribed to local causes, namely to the neglected state of the sewers and the filth accumulated between the wharfs. The wharfs, which extend along Water-street or the commercial part of Georgetown, were formerly erected upon piles, and the tide had full access to carry off whatever filth had accumulated : at a later period these wharfs have been erected of masonwork, and as a separate wharf is generally attached to every lot or building, openings have remained between them which are too narrow to allow the tide to enter freely and to sweep away the impure matter thrown there by neglect. The rapid decomposition of animal and vegetable matter under the tropics created in this instance an effluvium, which is generally considered by the physicians in the colony to have been the cause of the late calamity. It showed itself therefore first in Water-street, and was mostly restricted to that quarter of the town: it spread next among the shipping which were anchored in front of these wharfs, where it prevailed with great mortality among the sailors. In the infected part of the town a faint and sickly smell was perceived ; and it has been, I believe, generally acknowledged and proved, that those who were attacked by the disease out of town or in Berbice, had previously visited Water-street and breathed the noxious exhalations. Immediate contact with the sick did not propagate the disease, nor did seclusion diminish it ; and there is no instance known in which it extended to the more elevated places in the interior.

The general health of the town was restored in 1839, when on a sudden the distemper made its appearance among the garrison at the barracks, somewhat east of the town, where it committed frightful ravages among the European troops. The beach to the eastward of these barracks is covered with mangroves and *Curida* bushes, and the muddy ground beneath them diffuses noxious

exhalations, which are materially increased by the decomposition of numerous mollusca, insects, and crustaceous animals, which seek shelter from the waves among the interlaced roots, and frequently perish there. The wind and tide carry the drift matter which comes down the river or from among the shipping ashore here, and it accumulates, and contributes to the insalubrity of the air. The frequently intemperate and indolent life of the soldiers assisted to increase the disease, and it did not stay its ravages until the soldiers were removed to Georgetown and to the country. The troops in Berbice and in the outposts remained healthy during this period, and it is worthy to be noted that during a space of fourteen years no officer of the line died in Berbice. There were only two deaths among commissioned officers during that period, namely a barrack-master and a surgeon.

Number of
deaths in
Georget-
town in
1837, du-
ring the
prevalence
of the en-
demic.

I am not acquainted with the number of deaths which occurred among the garrison during the prevalence of these awful endemic attacks; but I possess the official return of the Colony sexton of the year 1837, when the unhealthiness of Georgetown and the existence of the yellow fever could not be denied. The burials amounted during that year to 914, namely,—

428 white persons, including 97 seamen,

160 apprenticed labourers,

326 coloured persons.

In absence of data it is difficult, if not impossible, to form an estimate of the number of deaths in a given number of inhabitants. The population of Georgetown amounted in 1829 to 1620 whites, 4368 free coloured, and 6616 slaves. On the 31st of May 1832, we observe from official returns that the slaves in Georgetown amounted to 8033; and as in the interval no census had been taken, the actual number of inhabitants, when the yellow fever first showed itself, can-

not be ascertained. The number of emigrants who arrived in 1837 amounted to 2050. The number of white inhabitants have been stated to be between 4000 to 5000 in 1837, which, deducting the 97 seamen, gives—

1 death in 15 persons among the whites and coloured,
 1 ——— 50 ——— apprenticed labourers,
 or about five per cent. of the whole population; while previous to the endemic disease and after the present restoration of health, the number of deaths amounted scarcely to three per cent.

The following statement of the annual mortality on five estates in Berbice is taken from parliamentary papers, and will show the annual mortality among the labouring classes.

Number of apprenticed labourers in 1835, 1309 ; in 1836, 1271 ; in 1837, to 30th Nov., 1226.

Number of deaths during 1835, 38 ; in 1836, 38 ; in 1837, to 30th Nov., 31.

38 deaths in 1309 give 1 in $34\frac{2}{3}$ as the average of 1835

45 ——— 1271 — 1 in $28\frac{1}{2}$ ——— 1836

34 ——— 1226 — 1 in 36 ——— 1837 ;

—a mortality less than the average of several European nations, and very little more than that within the bills of mortality in London. The above statement proves further the salubrity of 1837 in Berbice, during which year the endemic was prevailing in Georgetown, and restricts the latter to local causes. It will be observed that the least number of deaths occurred in 1837, if compared with the preceding two years.

Let us now compare the number of deaths among the labouring classes in the West India Islands, and it will become evident that mortality is more fatal in Trinidad, Tobago, St. Vincent's, Grenada, Dominica, than in Demerara.

The number of deaths between the years 1820 and 1832 among the labouring population, when still slaves, gave the annual average in

| | |
|-------------------------|---------|
| Trinidad of | 1 in 23 |
| Tobago | 1 — 24 |
| Demerara and Essequibo | 1 — 33 |
| Berbice | 1 — 32 |
| Jamaica | 1 — 40 |
| Grenada | 1 — 30 |
| St. Vincent's | 1 — 32 |
| Barbadoes | 1 — 35 |
| St. Lucia | 1 — 34 |
| Dominica | 1 — 32 |
| Antigua | 1 — 36 |
| St. Christopher's . . . | 1 — 36 |
| Montserrat | 1 — 34 |
| Nevis | 1 — 41 |

Salubrity of
the climate
of the inte-
rior.

The salubrity of the interior is proverbial, and there are many instances of longevity among the settlers on the banks of the rivers Berbice, Demerara, and Essequibo*. The natural drainage is here so perfect, that all impurities are swept off by the torrents of rain; and the purity of the air so great, that the planets Venus and Jupiter may be seen in the day-time †. The climate inland is re-

* Instances of longevity are not unfrequent at the coast regions. There is a monumental inscription in the parish of St. Saviour's, on the Corentyn coast, that the deceased, a Mr. Baird, after a residence of fifty-three years in the West Indies, the last thirty-six of which were spent on the Corentyn coast, had reached the advanced age of eighty-seven years and eight months. I am acquainted with several instances of Europeans now residing in Guiana, who have passed thirty to forty years in the colony without having visited Europe in the interval, and enjoy excellent health.

† While descending the Upper Essequibo in December 1838, we saw, one afternoon at three o'clock, the sun, the moon, and the planet Venus.

storative, and the writer has been assured by several individuals who reside generally in the coast regions, that when they are ailing they undertake an excursion in the interior, and are sure to return after a short period in health. It is not the absolute degree of temperature which determines the salutary state of a country, but the sudden changes of heat and cold; and, as will have been observed from the preceding tables, the uniformity of the temperature is so great in Guiana, that it is not surpassed by any country under the globe.

The climate of Guiana is free from those alternations of heat and cold, and those chilly piercing winds with a hot sun, not uncommon in some of the islands.

Tubercular consumption is unknown on the coast. Many who have arrived with this complaint from Europe or the northern part of America have perfectly recovered*; and Dr. Hancock assures us that, during his long practice on the coast of Guiana, he “never met with an instance of genuine tubercular phthisis, nor a single case of calculus generated there. Now,” he continues, “this is not the case amongst the West India Islands, and for this plain reason; that however favourable may be the sea-breeze in the day, there is every night a cool land-wind blowing from the central parts towards the sea†.”

The prevailing diseases are dysenteries, diarrhœa and fevers: the latter prevail chiefly in the intermitting form throughout the swampy land, which runs level with the sea-coast; but they may be guarded against by due at-

Tubercular consumption unknown in Guiana. The colony a place of resort for northern invalids.

Indolence and intemperance the cause of the great mortality among European colonists.

* The West Indies have lately been recommended as places of resort for northern invalids afflicted with dyspepsia, nervous complaints, and pulmonary diseases. See “A Winter in the West Indies and Florida.”

† Dr. Hancock relates an instance in which the climate of Guiana proved curative of pulmonary consumption in a most remarkable and desperate case, in the person of a Swede who arrived in a vessel from Portsmouth.

tention to perspiration ; indeed exercise and temperance are the greatest safeguards. The opinion that Europeans are not able to undergo exercise or labour under the tropics, is a great mistake ; those who take daily exercise, without exposing themselves to the heat of the vertical sun, and abstain from the excessive use of strong liquors, may enjoy the best health and a long life. Indolence and intemperance have carried more victims to the grave than any endemic disease which ever prevailed in Guiana.

I have dwelt longer on the effects which climate exercises on the inhabitants of British Guiana than properly belongs to the plan of this little work : it became, however, necessary to prove that the colony is really not so unhealthy as public opinion holds it to be. It is to be hoped that more attention will be paid to the important work of draining and clearing unoccupied lots in the towns. If the local authorities, on whom the necessary orders for the accomplishment of this depend, reflect for a moment on the importance of impressing, with a favorable opinion of British Guiana, those countries from which the colony expects to draw emigrants, no exertion or expense ought to be spared to promote and increase the healthiness of their towns. The most injurious reports with regard to the fatal influence of the climate on European constitutions have gone forth, and have been spread through Europe ; and, with the same incorrectness that Demerara has been styled an island in parliamentary speeches, it has been designated a charnel-house.

Vegetable Productions.

Few countries on the surface of the globe can be compared with Guiana for vigour and luxuriance of vegeta-

tion. A constant summer prevails; and the fertility of the soil, the humid climate, and congenial temperature, insure a succession of flowers and fruits; in a person accustomed to the sleep of nature in the northern regions, where vegetation is deprived of its greatest charms, the leafy crown and the fragrant blossoms cannot but raise astonishment and admiration.

Diversified with hills, plains, forests and meadows, a country so extensive offers various productions. These have been increased by introductions from other parts of the world, and present objects of industry and enterprise, which insure to the poor maintenance, to the labourer the liberal recompense of his toil, to the merchant commerce, and to the capitalist an increase of his wealth.

The majestic scenes of nature which I viewed during my exploring tours in Guiana impressed themselves with indelible characters upon my mind, which are the more powerfully awakened, since my return to Europe, when comparing our vegetation with the magnificent scenes which plain, dale, or forest present under the tropics.

The coasts, washed by the waves of the Atlantic Ocean, are covered with mangrove and *Curida* bushes*, and present a verdure of perpetual freshness, forming as it were a seam or fringe to the rich carpet behind. They are enlivened by numerous flocks of the scarlet Ibis, the white Egrette, and the splendid Flamingo, which, disturbed at the approach of an intruder, soar into the air, or perch on the summits of the trees. Where cultivation has not stamped its seal on the landscape, the marshy plain changes to savannah, resembling the meadows of Europe, watered by rivers and limpid streams, inter-

* The vegetation along the coast, as elsewhere alluded to, consists chiefly of *Rhizophora Mangle*, L., *Avicennia nitida* and *tomentosa*, and *Conocarpus erectus*.

spersed by groups of palms or tufts of trees. On ascending the great rivers, which have been happily called "the veins of the country," we find them covered with verdant isles; and as we approach the primitive forests the landscape assumes the features peculiar to the tropics. It appears as if the power and strength of productive nature in recoiling from the poles had collected itself near the equator, and spread its gifts with open hand, to render its aspect more imposing and majestic, and to manifest the fecundity of the soil. Gigantic trees raise their lofty crowns to a height unknown in the European forest, and display the greatest contrast in the form and appearance of their foliage*. Lianas cling to their trunks, interlace their wide-spreading branches, and, having reached their summit, their aerial roots descend again towards the ground, and appear like the cordage of a ship. Clusters of palm-trees, of all the vegetable forms the most grand and beautiful, rise majestically above the surrounding vegetation, waving their pinion-like leaves in the soft breeze. Nature, as if not satisfied with the soil allotted to her, decorates with profuse vegetation the trunks and limbs of trees, the stones and rocks; even the surface of the water is covered with a carpet of plants interspersed by magnificent flowers†. What could better give an idea of the luxuriance and richness of vegetation in Guiana, than the splendid *Victoria regia*, the most beau-

* If we except the *Coniferae*, our forest trees, as oaks, birches, ashes, cannot vie in size with the *Laurineae*, the *Icica* and *Mora* of the tropical forest.

† The magnificent *Victoria regia*, which the author was so fortunate as to discover on the 1st of January, 1837, in the river Berbice, and which Her Majesty has graciously consented to have made known by that name, covers, in conjunction with the azure-coloured *Pontedera*, divers *Utriculariæ*, a species of *Polygonum*, *Pistia*, and numerous *Gramineæ*, occasionally the whole surface of the river Berbice so as to impede navigation.

tiful specimen of the flora of the western hemisphere? The calm of the atmosphere, where frequently no breath of wind agitates the foliage, no cloud veils the azure vault of heaven, contrasts strongly with the hum of animated nature produced by insects of every kind. The humming bird with its metallic lustre passes rapidly from blossom to blossom, sipping the nectar of fragrant flowers, or sporting with the dewdrop which glitters on its leaf.

It is usual to deny to the birds of the American forest all melody. Many are the feathered songsters which enliven the forest: although they may not vie with our nightingale in melodiousness of tone, they are not devoid of it. Night approaches, and displays the firmament with all the splendour of the southern constellations; the musical notes of birds now give place to the chirping voices of crickets, the sounds of the tree-frog, lizards and reptiles. Thousands of phosphorescent insects flutter among the foliage, emitting a light, which, if it does not illuminate, assists to increase the characteristic features of a tropical night.

The dense and almost impenetrable forest of the interior offers inexhaustible treasures, not only for architecture in all its branches, but likewise for the manufacture of furniture, and for many other purposes that minister to the restoration of health or to the comfort and luxury of man.

Not less productive in medicinal herbs are the savannahs; and an enumeration of the various useful trees and herbs would fill sheets. I shall therefore satisfy myself with mentioning only those the use of which is fully acknowledged by the colonists and natives.

The MORA (*Mora excelsa*, Benth.) may well be called the king of the forest; it towers above every other tree, and reaches frequently a height of 120 feet. It is abundant in the interior, and its wood so close and cross-grained that it is difficult to split it. It is considered

Timber-trees.

by the most competent judges to be superior to oak, (as it is not subject to the dry-rot,) and the very best wood that can be procured for ships' timbers. It can be obtained from ten to twenty inches square, and thirty to fifty feet long; and its branches having a tendency to grow crooked, it affords natural knees, while the trunk might be used for keels, beams and planking.

SIPERI, or GREEN HEART, (belonging to the natural family of *Laurineæ*,) is one of the most useful timber-trees which Guiana possesses. It grows to a height of about sixty feet, and is often two feet in diameter; it is a fine-grained and hard wood, well adapted for the planking of vessels and for house-frames.

The seeds are of the size of a walnut, and possess a strong bitter, which has been extracted by Dr. Rodie, and been used with great advantage as a powerful febrifuge.

In times of scarcity the Indians grate the fruit and immerse it in water, by which process the fecula sinks to the bottom; the flour thus obtained is mixed with rotten wood, pounded and sifted; the bread prepared is bitter and disagreeable.

The black GREEN HEART is scarce. Its wood is in great request in the islands, as from its well-known durability it is preferred to all others for windmills, shafts, spindles, rollers, arms, water-wheel planks, &c.

The PURPLE HEART is rather scarce on the coast-regions. It is a tree of the largest size, and its wood is used for furniture in consequence of the beauty of its colour and its durability; its elasticity is very great; it has been used with advantage for the construction of mortar-beds*. The Indians call the Purple Heart *mari*

* Col. Moody, of the Royal Engineers, observes, that the "black Green Heart" and the "Purple Heart," were the only woods which stood the test, while all others failed, as mortar-beds at the siege of Fort Bourbon at Martinique.

wayana. They take off the bark of this tree when fresh cut down, and with very little trouble convert it into a canoe, commonly called a "wood-skin," some of which are large enough to carry twenty to twenty-five persons with perfect safety on smooth water.

KAKARALLI is very plentiful, and may be had from six to fourteen inches square, and from thirty to forty feet long. It is preferred in the colony to most timbers, and possesses the peculiarity, that the sea-worm or barnacle never attacks it.

WAMARA may be had from six to twelve inches square, and twenty to forty feet long. It is hard and cross-grained, consequently not apt to split; it would therefore answer various purposes in naval architecture.

DETERMA is very plentiful, squaring from six to twenty inches, and may be had from thirty to sixty feet long. It is much used in the colony for the construction of schooners; it ought to be copper-fastened, as iron nails are apt to corrode.

HOUBABALLI is very close and fine-grained, and much used in the colony for furniture. It takes a beautiful polish. It may be had from six to fifteen inches square, and from twenty to thirty-five feet long.

WALLABA is very abundant throughout the colony. It is a reddish-brown wood, and splits smoothly and freely; it is used for staves, shingles, &c. The wood possesses an oily resin, the use of which is however not known.

BULLY-TREE is a tree of the first size; it is often six feet in diameter. The weather appears to have little influence upon it, and it is therefore preferred for house-frames, posts, floors, &c. The branches are cut into shingles for covering houses; it squares from twenty to thirty inches, and may be had thirty to sixty feet long.

SIRUABALLI (a *Laurus*) is much used for planking, and has been found to resist the attack of worms, in consequence of a bitter principle which it contains. It is light, and floats; boat-builders use it for the construction of gigs, boats, &c.

CUAMARA, or Tonkin Bean, is not only valuable for its seeds, but it is likewise a useful timber-tree. Its wood is very hard, and it has been ascertained that a timber one inch square and of a given length bears one hundred pounds more weight than any other timber in Guiana of the same dimensions: it is therefore fit for anything where great pressure is the object.

CABACALLI may be had from twelve to twenty inches square, and thirty to fifty feet long. It is durable and very hard, and is used for beams and posts.

CARANA, WAHLI, or Cedar-wood, abounds in the interior of Guiana, and is much esteemed in consequence of its durability. It possesses a resin, which is odorous. The tree reaches a height of sixty to eighty feet, and is highly recommended for the construction of masts, spars, &c. The bark is red and astringent.

HUCOUYA, or Iron-wood, grows to the height of fifty feet, and is often six feet in diameter. It has a reddish wood, which becomes dark by age. It is uncommonly hard, as the name denotes, but not very durable when exposed to wet. It is used for fitting out the interior of houses.

SI-TO-OH-BALLI, or BOURRA-COURRA, or LETTER-WOOD, is one of the costliest woods which Guiana possesses. It is of a beautiful brown colour, with black spots, which have been compared to hieroglyphics; the spotted part being only peculiar to the heart, which is seldom more than twelve to fifteen inches in circumference: it is only

adapted for work of small size, and for veneering; but its beauty is so great that it surpasses every other wood for elegant appearance.

SIMIRI, or LOCUST TREE, reaches often a height of from sixty to eighty feet, and seven to eight feet in diameter. The wood is hard and compact, and is of a fine brown colour streaked with veins; it takes a beautiful polish, and is consequently much used for furniture. Its durability recommends it for the use of mill-rollers; it yields abundantly a kind of resin (gum-animé), much resembling gum-copal.

The BISI is a gigantic tree, and its wood is of great durability; the Indians use it for constructing corials and canoes; it yields a resin of a greenish colour, which is used by the Indians to give a gloss to their bows, &c.

DUCALI-BALLI, ITIKIRIBOURRA-BALLI, BANNIA are recommended for ornamental work. The Itikiribourra-balli is of a rich brown, spotted like a tiger-skin, in consequence of which it is called in the colony tiger-wood; as in the Letter-wood it is only the heart of the tree which can be used.

The YARI-YARI, or Lance-wood, is a slender tree, and possesses much toughness and elasticity. The natives make their arrow-points of it, and in the colony it is used for shafts of carriages, and large quantities of the spars are exported to Europe.

YARURI, MASSARA, or Paddle-wood. The whole tree, five to six feet in diameter, and to the first branches perhaps fifty feet high, has the appearance of being fluted, or as if it consisted of numerous slender trees. The flat or tabular projections of the lower part of the trunk are used by the natives for the construction of their paddles. The wood is light, elastic, and very strong; it might prove advantageous for gun-carriages, bulwarks of ves-

sels of war, &c., as, besides its elasticity it is not apt to splinter.

The wood of the *SOUARI* greatly resembles in nature and properties that of the *Mora*, and may be obtained from twenty to forty feet long, and sixteen to twenty inches square.

The *SIRUBA*, a tree of the first size, is only found in the interior, and is much used in the colony for ship-building. It yields by incision a camphoraceous fluid.

The *ANAPAIMA* abounds in the rocky district; it is a tree of the first size, and its wood is close-grained. The bark is highly aromatic, and is used by the Indians in fevers and dysentery.

CRAB WOOD grows tall and straight, and is used for masts and spars in colony vessels. It is a light and red wood and employed for floors and partitions in house-building.

TATABA grows tall and to a large size. It is a hard and tough wood, well adapted for mill timbers and planks of all descriptions, also for ship-building, gun-carriages, coffee-stamps, &c.

TACCUBA. This wood very much resembles the *WASHIBA*, or Bow-wood, and is only to be found in the high lands and among the falls. It is strong, hard, and durable, but not so elastic as the *Washiba*.

This list of timber-trees exhibits only such as are most advantageously known in the colony; but there are numerous others equally useful, although not yet generally known to the colonist*.

In medicinal respects many vegetable productions are of acknowledged value, but I shall refer to them under

* The information regarding the use of native timber-trees has been politely communicated to me by Mr. Patterson, an experienced shipwright and wood-cutter.

another article when I allude to the capabilities and resources of the Colony.

Animal Kingdom.

The Western Hemisphere does not equal in number nor in size the quadrupeds of Asia and Africa. The Jaguar, or South American Tiger, the Puma or American Lion, and several others of the Cat species, are the most ferocious; nevertheless, there are but few instances known where they have attacked man; and they are only feared as depredators on the flocks of cattle and sheep of the colonists. Quadrupeds.

It is not my intention to enter in this work, the extent of which is limited, into a description of the animals which are indigenous to Guiana: I shall content myself with enumerating such as contribute to the wants of man, affording a wholesome and delicate food. To this belong the Tapir or Maipuri, the Capibara or Waterhaas, the Labba, the Aguti, the Acuchi, the Cairuni or Wild-hog, the Peccari or Mexican Hog, and Deer of different species; other animals are the Ant-eater, Armadillo, Sloth, Otters, several species of Polecats, and Opossums. Numerous herds and varieties of Monkeys people the otherwise solitary forest, and serve as food to the natives. The Manati, Lamantine, or Sea-cow, is from time to time met with in the larger rivers: its flesh is white and delicate, and has been compared in taste to veal.

Not less numerous are the Birds; and while some astonish us by their magnificent plumage, others fully make up for their deficiency in this respect by their delicate and nutritious flesh. To the latter belong divers species of Wild Ducks, the Powis, the Marudi, the Hannaqua resembling a pheasant, the Duraqua and Maam, both resembling the European Partridge, Wild Pigeons, &c. Birds.

Among divers others I have yet to mention the Jabiru or Tararamu, a large bird which frequents the savannahs, and the flesh of which is not unlike beef in taste,—Parrots, Macaws, the plumage of which glows with the most vivid tints of blue, purple and yellow; the numerous species of Humming-birds covered with the most gorgeous plumage, and glittering with metallic lustre when winging their way from flower to flower; the Toucan, the bright yellow and black Mocking-birds, which construct their pendent nests on the same branch with the wild bees or the wasps, with which it appears they have entered into alliance, and receive their protection. The most courageous of the monkeys or the wariest of the cats would not attempt a depredation on their eggs as long as under the respected protection of these insects. The Bell-bird or Campanero, white as snow, with a leathery excrescence on its head, the cry of which has been resembled to the tolling of a convent bell; the magnificent Cock-of-the-rock with its bright orange plumage, and its head surmounted by a semi-circular erect crest, convey an idea of the splendour with which nature has decked its offspring under the tropics.

Saurians.

Of the Saurian tribe the Caiman and Alligator are perhaps the most formidable. The latter is too small to become dangerous; frequently, however, as I have met with the former, I never observed any disposition in them to attack us, unless we had provoked them. The Alligator inhabits the coast regions; the Caiman is only found in the interior. The Guana, which has the appearance of an overgrown lizard, is from four to six feet long, including the tail: it is entirely harmless, and its flesh is declared very delicate by every one who has overcome the prejudice which its appearance generally creates.

Turtles.

Land Tortoises and fresh-water Turtles are very abun-

dant, the latter chiefly in the river Essequibo and its tributaries. They assemble in large numbers during the time that the female deposits her eggs on the sandy shore or banks of the rivers. The eggs are very delicate, and are eaten fresh and smoked by the Indians; or they prepare a sweet-tasted oil of it, which is much used for culinary purposes by the Brazilians*.

Several of the Serpents of Guiana are poisonous; but as if in some measure to guard against their formidable quality, nature has rendered them less dangerous by making them sluggish and loath to bite, unless irritated. The Conocushi or Bush-master, the Rattle-snake, the Labaria, the Parrot and Guana Snake, the Capairu and Scarlet Snake are among the most dangerous. The Camudi and Colukunaru belong to the genus *Boa*; but the instances where they are known to have attacked man are very few; they satisfy themselves with surprising deer and other smaller animals. Serpents.

The rivers of the interior teem with delicious Fish in great variety. The Arapaima or Pirarucu (*Sudis Gigas*), and a species of *Silurus*, the Lau-lau, are from ten to twelve feet long, and weigh from two to three hundred pounds. The Lukanani or Sun-fish, the Haimura, Bashaw, Cartabac, Killbagre, the delicious Pacu, the Arouan, the Paiara, Pirai, the Morocoto or Osibu, the Laukidi, the Parrau, &c. vie in delicacy with any of our European freshwater fishes, while numerous others contribute equally to the nutriment of man. Fish.

Among Insects, some species of ants prove destructive to vegetation; and the *Termites*, or White Ants, are known Insects.

* The turtle oil (*mantega de tartaruga*) constitutes a branch of commerce in the province of Para. The quantity which is prepared only in the Upper Amazons, or Solimoes, is estimated at eight thousand potes of two arrobas or sixty-four pounds each.

to have become injurious to the framework of houses, or to furniture, if they are allowed to take up their residence in a dwelling. The sting of the Scorpion and the bite of the Centipede are painful, but not dangerous. It is chiefly confined to old rubbish and houses. The bite of the Bush-spider, and what is here called the Tarantula, produces inflammation of the part where the bite has been inflicted, but has never endangered life. The Tshiko or Chigo, a small species of flea which penetrates into the skin of the feet, proves frequently very troublesome; it infests abandoned huts, chiefly where there is a sandy soil; cleanliness in great measure banishes it.

Musquitoes are not frequent in the interior; but some regions are infested by a small fly called Mapire (*Simulia*), which proves troublesome by its bites.

STATISTICS OF BRITISH GUIANA.

British Guiana consists of the counties of Demerara, Essequibo, and Berbice. Demerara and Essequibo have been united, and are divided into the following eleven parishes. Political Division.

1. ST. MARY, extending from the Abari Creek to plantation Lowlands.
2. ST. PAUL, from plantation Nooten's Zuile to plantation Cuming's Lodge.
3. ST. GEORGE AND ST. ANDREW, comprehending Georgetown, and extending from thence to plantation Turkeyen.
4. ST. MATTHEW, plantation Penitence and east bank of river Demerara.
5. ST. MARK, plantation Mindenberg Canal, No. 1, and west bank of Demerara river upwards.
6. ST. SWITHIN, from plantation La Grange to plantation La Jalousie.
7. ST. LUKE, plantation Blankenburg up east bank of river Essequibo.
8. ST. PETER, Leguan and Hog Islands.
9. ST. JAMES, Wakenaam and Trooli islands.
10. ST. JOHN, from Schoonhooven to Capooey Creek.
11. TRINITY, from Capooey Creek to Pomeroon river.

The county of Berbice is divided into six parishes.

1. ALL SAINTS, comprehending the town New Amsterdam, plantations Overwinning and Providence, and the left bank of the river Canje.
2. ST. PATRICK, right bank of the river Canje and the east coast canal.
3. ST. MICHAEL, from plantation Balthyock to the river Abari.
4. ST. CATHERINE, from plantations Zorg and Hoop to plantation Herstelleng, and the west bank of the Berbice river.
5. ST. CLEMENT, from plantation Everton to plantation Onderneeming, east bank of river Berbice.

6. ST. SAVIOUR, the Corentyn coast and river.

The two chief towns are Georgetown on the river Demerara, and New Amsterdam on the river Berbice; the former, which is the residence of the Governor, is considered the capital of British Guiana.

Inhabitants.

British Guiana is inhabited by Europeans, Africans, and native Americans. The Europeans are mostly Englishmen and their descendants; very few of the former Dutch settlers having remained in the colony since it was ceded to Great Britain. The Negroes, who were originally brought over from Africa to cultivate the soil, constitute by far the greatest number of the inhabitants. The native Americans have dwindled to an inconsiderable number.

The following statement of the population of British Guiana is given from Parliamentary tables and Montgomery Martin's Statistics of the Colonial Empire. There has been no census of the population in Demerara and Essequibo since 1829.

Population
in the coun-
ties Deme-
rara and
Essequibo.

Population of the Colonies Demerara and Essequibo in 1829.

| District. | Whites. | | | Free Coloured. | | | Slaves. | | |
|--------------------------|---------|---------|--------|----------------|---------|--------|---------|---------|--------|
| | Males. | Females | Total. | Males. | Females | Total. | Males. | Females | Total. |
| Demerara in the country. | 662 | 110 | 772 | 463 | 617 | 1080 | 33,883 | 28,869 | 62,752 |
| Essequibo | 476 | 138 | 614 | 442 | 470 | 912 | | | |
| Georgetown | 962 | 658 | 1620 | 1625 | 2743 | 4368 | 3,209 | 3,407 | 6,616 |
| Total | 2100 | 906 | 3006 | 2530 | 3830 | 6360 | 37,092 | 32,276 | 69,368 |

Total population in Demerara and Essequibo in 1829 :—
41,722 males, 37,012 females; grand total 78,734.

The following census shows the total population of Demerara alone, October 31st, 1829.

| No. of Company. | Battalion of Militia. | District. | Whites. | | | Free Black and Coloured. | | | Grand total. |
|-----------------|-----------------------|--|---------|----------|--------|--------------------------|----------|--------|--------------|
| | | | Males. | Females. | Total. | Males. | Females. | Total. | |
| 1 | 2 | From plantation Thomas to plantation Lusignan, parish of St. George and St. Mary | 81 | 7 | 88 | 23 | 42 | 65 | 153 |
| 2 | ... | From plantation Annandale to plantation Lancaster, parish of St. Paul and St. Mary | 87 | 1 | 88 | 29 | 37 | 66 | 154 |
| 3 | ... | From plantation Cane Grove to Mahaica village, parish of St. Mary | 71 | 10 | 81 | 67 | 113 | 180 | 261 |
| 4 | ... | From Abari to plantation Bath, parish of St. Mary | 28 | 3 | 31 | 38 | 74 | 112 | 143 |
| 1 | 3 | From plantation La Pénitence, including canal No. 3, parish of St. Matthew..... | 82 | 20 | 102 | 36 | 51 | 87 | 189 |
| 2 | ... | From plantation La Grange to plantation Waller's Delight, parish of St. Swithin | 52 | 7 | 59 | 33 | 44 | 77 | 136 |
| 3 | ... | From plantation La Parfaite Harmonie to plantation Wales, parish of St. Mark | 60 | 11 | 71 | 25 | 33 | 58 | 129 |
| 4 | ... | From plantation Vriesland to Saesdyk, parish of St. Mark and part of St. Matthew... | 32 | 2 | 34 | 38 | 46 | 84 | 118 |
| 5 | ... | From plantation Sans Souci on the lower side, to Dinabuna on the upper, parishes of St. Mark and St. Matthew | 23 | 9 | 32 | 55 | 51 | 106 | 138 |
| 6 | ... | From Windsor Forest to Borasiri Creek, parishes of St. Swithin and St. Luke | 80 | 2 | 82 | 25 | 28 | 53 | 135 |
| 7 | ... | From plantation Zeelugt to Beverhaults, parish of St. Luke | 35 | 23 | 58 | 37 | 45 | 82 | 140 |
| ... | ... | From plantation Mara to plantation Loo, Upper Demerara river, parish of St. Luke | 31 | 15 | 46 | 57 | 53 | 110 | 156 |
| | | | 662 | 110 | 772 | 463 | 617 | 1080 | 1852 |

A similar return for Essequibo at the same date gives the population thus :

| No. of Company. | Battalion of Militia. | District. | Whites. | | | Free Black and Coloured. | | | Grand total. |
|-----------------|-----------------------|---|---------|----------|--------|--------------------------|----------|--------|--------------|
| | | | Males. | Females. | Total. | Males. | Females. | Total. | |
| 2 | 1 | From Fort Island, inclusive of both sides of the river upwards | 9 | 13 | 22 | 61 | 58 | 119 | 141 |
| 3 | ... | Leguan Island and Hog Island, parish of St. Peter | 110 | 32 | 142 | 52 | 51 | 103 | 245 |
| 4 | ... | From plantation Caledonia to plantation Maria's Lodge, parish of St. James..... | 86 | 15 | 101 | 34 | 37 | 71 | 172 |
| 5 | ... | From Vergeleegen to Aboeneboenaba, parish of St. John | 33 | 13 | 46 | 176 | 186 | 362 | 408 |
| 1 | 2 | From Caro Caro creek to plantation Hoff van Holland, parish of St. John .. | 54 | 12 | 66 | 62 | 66 | 128 | 194 |
| 2 | ... | From plantation Alliance to Cattle Town, parish of St. John..... | 63 | 37 | 100 | 28 | 38 | 66 | 166 |
| 3 | ... | From plantation Taymouth Manor to Shamrock Hall | 121 | 16 | 137 | 29 | 34 | 63 | 200 |
| | | | 476 | 138 | 614 | 442 | 470 | 912 | 1526 |

General census and appraisement of Georgetown of the 31st of October, 1829.

| District. | White. | | | Free Black and Coloured. | | | Grand total. | Appraised value of lots and buildings in 1830. |
|--|--------|----------|--------|--------------------------|----------|--------|--------------|--|
| | Males. | Females. | Total. | Males. | Females. | Total. | | |
| Kingston | 66 | 68 | 134 | 158 | 277 | 435 | 569 | \$ 508,040 |
| North Cumingsburg | 117 | 85 | 202 | 231 | 359 | 590 | 792 | 1,355,350 |
| South Cumingsburg, including Company Path with respect to appraisement } | 202 | 108 | 310 | 375 | 630 | 1005 | 1315 | 1,554,340 |
| Robb's Town | 144 | 32 | 176 | 78 | 135 | 213 | 389 | 1,069,200 |
| New Town, including Colombia | 52 | 21 | 73 | 29 | 58 | 87 | 160 | 362,000 |
| Stabrook | 81 | 69 | 150 | 80 | 182 | 262 | 412 | 427,350 |
| Werken Rust | 148 | 118 | 266 | 316 | 495 | 811 | 1077 | 778,660 |
| Charlestown | 86 | 84 | 170 | 183 | 299 | 482 | 652 | 407,750 |
| Lacy Town | 66 | 73 | 139 | 175 | 308 | 483 | 622 | |
| | 962 | 658 | 1620 | 1625 | 2743 | 4368 | 5988 | 6,462,692 |

The Slave population in each parish of Demerara and Essequibo, 31st of May, 1832, was :

| Parishes. | Males. | Females. | Total. | Births under three years of age. | | | Deaths. |
|---|--------|----------|--------|----------------------------------|----------|------------------------|-------------------------|
| | | | | Males. | Females. | Births per cent.* | |
| St. Mary | 3394 | 2907 | 6301 | 237 | 224 | 7, $\frac{1993}{6301}$ | 9, $\frac{1891}{6301}$ |
| St. Paul | 4510 | 4262 | 8772 | 300 | 338 | 7, $\frac{599}{2193}$ | 8, $\frac{1981}{2193}$ |
| St. George & } St. Andrew } | 3993 | 4040 | 8033 | 280 | 297 | 7, $\frac{1469}{8033}$ | 7, $\frac{7769}{9033}$ |
| St. Matthew | 2934 | 2670 | 5604 | 158 | 162 | 5, $\frac{995}{1401}$ | 11, $\frac{238}{467}$ |
| St. Mark | 2570 | 2063 | 4633 | 116 | 108 | 4, $\frac{3863}{4633}$ | 10, $\frac{4170}{4633}$ |
| St. Swithin ... | 2059 | 1851 | 3910 | 104 | 104 | 5, $\frac{125}{391}$ | 13, $\frac{307}{391}$ |
| St. Luke | 2930 | 2605 | 5535 | 167 | 193 | 6, $\frac{62}{123}$ | 11, $\frac{463}{1107}$ |
| St. Peter | 3015 | 2872 | 5887 | 178 | 155 | 5, $\frac{3865}{5887}$ | 13, $\frac{969}{5887}$ |
| St. James..... | 2126 | 2040 | 4166 | 82 | 106 | 4, $\frac{1068}{2083}$ | 13, $\frac{1171}{2083}$ |
| St. John | 2471 | 2146 | 4617 | 128 | 144 | 5, $\frac{4115}{4617}$ | 11, $\frac{2813}{4617}$ |
| The Trinity ... | 4347 | 3712 | 8059 | 224 | 281 | 6, $\frac{2186}{8059}$ | 10, $\frac{616}{8059}$ |
| | 34,349 | 31,168 | 65,517 | 1974 | 2112 | | |
| Slaves at- tached to plantation } | 28,083 | 24,394 | 53,477 | 1558 | 1705 | | |
| Personal and unat- tached } | 6266 | 5774 | 12,040 | 416 | 407 | | |

According to these returns, the number of slaves in Demerara and Essequibo on the 31st May 1832, was 65,517; of which

4,086 were under 3 years of age,
 2,744 above 3 years and not exceeding 5,
 5,401 between 5 and 10,
 6,115 ——— 10 — 16,
 16,013 ——— 16 — 30,

* Since the Registration of May, 1829.

8,345 between 30 and 40,
 13,585 ——— 40 — 50,
 7,179 ——— 50 — 60,
 1,613 ——— 60 — 70,
 363 ——— 70 — 80,
 40 ——— 80 — 90,
 7 ——— 90 — 100,
 2 100 years and upwards,
 24 age unknown, supposed to be absentees.

Population
 of the
 county of
 Berbice.

The population of Berbice in 1764 was

116 whites.
 1,308 male negroes.
 1,307 female ditto.
 745 children.

Total 3,476

Return of the population of the colony of Berbice in
 October 1827.

| District. | Whites. | | | Free Coloured. | | | Slaves. | | |
|-----------------------|---------|----------|--------|----------------|----------|--------|---------|----------|--------|
| | Males. | Females. | Total. | Males. | Females. | Total. | Males. | Females. | Total. |
| New Am- sterdam. } | 130 | 49 | 179 | 324 | 530 | 854 | 695 | 681 | 1376 |
| Country..... | 289 | 55 | 344 | 130 | 177 | 307 | 10202 | 8540 | 18742 |
| Total... | 419 | 104 | 523 | 454 | 707 | 1161 | 10897 | 9221 | 20118 |

Total population of the colony of Berbice in 1827,
 21,802 souls; showing an increase, if compared with the
 census of 1764, of 18,326.

The population of this colony according to the return
 of 1833 was as follows :

| District. | Whites. | | | Free Coloured. | | | Slaves. | | |
|-----------------------------|---------|----------|--------|----------------|----------|--------|---------|----------|--------|
| | Males. | Females. | Total. | Males. | Females. | Total. | Males. | Females. | Total. |
| Town of NewAmsterdam. | 161 | 95 | 256 | 527 | 779 | 1306 | ... | ... | ... |
| Canje District.... | 50 | 5 | 55 | 39 | 35 | 74 | ... | ... | ... |
| East and Corentyn Coast.... | 51 | 8 | 59 | 14 | 53 | 67 | ... | ... | ... |
| West Coast. | 53 | 15 | 68 | 13 | 27 | 40 | ... | ... | ... |
| RiverBerbice | 116 | 16 | 132 | 78 | 86 | 164 | ... | ... | ... |
| Total ... | 431 | 139 | 570 | 671 | 980 | 1651 | 10,243 | 9,077 | 19,320 |

Total population of the colony of Berbice in 1833, 21,541 souls; showing, if compared with the census of 1827, an increase of 47 whites, 490 free coloured, and a decrease in the number of slaves of 798. In the absence of data as to how many slaves bought their freedom during that period the decrease by death cannot be correctly obtained. Between the years 1828 and 1831, 118 slaves received their manumission.

An attempt has been made to ascertain by a general census the population of British Guiana at that remarkable epoch when slavery was abolished throughout the British Colonies. Some difficulties which opposed themselves to such an important step have delayed the result, but it is to be hoped that the execution of a subject so desirable has not been abandoned by the local authorities.

Population
of British
Guiana.

The number of the negro population in British Guiana, in respect of whom compensation was claimed and awarded under the act for abolishing slavery, was, according to the parliamentary return to the House of Lords,—

| | |
|--|--------|
| Prædial attached | 57,807 |
| Prædial non-attached | 5,475 |
| Non-prædial | 6,297 |
| <hr/> | |
| Total for whom compensation was awarded | 69,579 |
| Children under six years of age, Aug. 1, 1834. | 9,893 |
| Aged, diseased, or otherwise non-effective. | 3,352 |
| <hr/> | |
| Total slave population | 82,824 |

The value put upon the entire slave population, computed from sales between 1822 and 1830, was 9,489,559*l.*; and the compensation paid for the labouring classes out of the twenty millions awarded by parliament, amounted to 4,268,809*l.*, that for the children and aged persons, &c., was 226,180*l.*

The whole population of British Guiana, excluding the Aborigines, probably amounts at present to 98,000* individuals, which gives only one hundred and thirty inhabitants to one hundred square miles.

Indians or
aboriginal
inhabit-
ants.

History informs us that the discoverers of South America found the continent densely peopled by Indians. What then has become of the millions of aborigines who once inhabited these regions? Driven from their lands, now in possession of the Europeans and their descendants, they have wandered from their ancient homes, strangers in their own country; and diseases and vices introduced by the settlers, and feuds among themselves, have all but annihilated the rightful owners of the soil. It is a melancholy fact, but too well founded, that where-

* According to the following estimate :

| | |
|---------------------------------|--------|
| Negro population as above | 82,824 |
| Coloured | 8,076 |
| Whites | 4,000 |
| Emigrants since 1829 | 3,100 |

ever Europeans have settled, the extermination of the native tribes has succeeded their arrival.

Guiana is inhabited by a thinly scattered population of aboriginal natives, who, although they agree in stature and features, in disposition and customs, and mode of living, differ nevertheless in language, and this difference is so great, that tribes who live adjacent to each other speak a language essentially distinct. To ascertain the affinities of these languages is a task of the greatest difficulty, and demands a closer application and a longer period than I have had time to dedicate to it. The analogy in the roots of the Caribi, the Macusi, and the Arecuna; the Wapisiana, and the Parauana, leaves little doubt that these nations descend from the same stock; the Arawaak, Warrau, Taruma, Woyawai differ more or less in their composition. The Accawai, or Waccawaio, is merely a dialect of the Caribi.

The most powerful tribes now extant are the Macusis and Arecunas, who inhabit the extensive plains on our southern and south-western boundary; but of the Caribi, the once widely-extended people, who retained their independence for a long period after the arrival of the Europeans, and who were the terror of all other nations, there remain but few in British Guiana.

It is difficult, if not impossible, to form an estimate approximating to truth of the number of aborigines within the boundaries of British Guiana. Their wandering life increases this difficulty. They consist of the following tribes:

- | | |
|--------------------------|----------------------|
| 1. Arawaak. | 6. Macusi. |
| 2. Warrau. | 7. Arecuna. |
| 3. Caribi or Caribisi. | 8. Wapisiana. |
| 4. Accawai or Waccawaio. | 9. Atorai or Atoria. |
| 5. Taruma. | 10. Woyawai. |

The Arawaaks and Warraus live at the coast regions, and their small settlements extend scarcely one hundred miles inland : I estimate their number at 3150. The Caribis inhabit the lower Mazaruni and Cuyuni ; about 100 are located at the Corentyn, 80 at the Rupununi, 30 at the Guidaru, and their whole number (once the lords of the soil) does not at present surpass 300. The Accawais or Waccawaiois inhabit the upper Demerara, the Mazaruni, and Potaro, and amount likely to 600. The Macusis occupy the open country or savannahs of the Rupununi, Parima, and the mountain chains Pacaraima and Canucu. Those who inhabit our territory number 1500 ; the whole tribe is probably not less than 3000. They are bordered to the north by the Arecunas, who inhabit the mountainous regions at the head-waters of the Caroni and Cuyuni. They are a powerful tribe, but are more properly the inhabitants of the Venezuelean territory ; about 150 live at the south-western tributaries of the Mazaruni. The Wapisiana are a tribe inhabiting the savannahs of the upper Rupununi and the banks of the Parima : I estimate the number who inhabit our territory at 500. The Atorais, at the Carawaima mountains and along their north-western foot, border on the territory of the Wapisiana ; the Atorais, like the Caribis, are fast approaching their extinction ; their whole number does not amount to 200. The Tarumas * inhabit the tributaries of the upper Essequibo : they are a fine athletic tribe, very likely amounting to not less than 500 individuals. The Woyawais, a race who inhabit the regions between the head waters of the Essequibo and the affluents of the

* Von Martius in his enumeration of Indian tribes considers the Tarumas or Taruman extinguished. It appears they have retreated from the mouth of the Rio Negro, which they formerly inhabited, to the head-waters of the Essequibo.

Amazons, number about 350: they are on the southern confines of our boundary. The aggregate number of Indians in British Guiana is therefore estimated at 7000.

While an account of their manners and customs would be here out of place, their forlorn situation engages all our sympathy. Their present history is the finale of a tragical drama; a whole race of men is wasting away; but heartless is the assertion, unworthy of our philanthropic age, that the indigenous race of the new world is insusceptible of elevation, and that no power of princes, philosophy, or Christianity can arrest its gloomy progress towards certain destruction. Such a heartless idea could not have been adopted by him who lived with them, who studied their character. I speak from experience, if I assert that the Indian is as capable of progressive improvement, and the establishment, among his tribe, of social order, European arts, and Christian morals, as were the Teutonic races in their infancy, who emerged progressively from the greatest barbarism to the bright station which they at present occupy among the most civilized nations of Europe. Let us compare their present condition with the picture which Tacitus drew of the social state and manners of these Germans, and we may yet hope that if proper measures were adopted to raise the Indian from his forlorn situation, these efforts would be crowned equally with success.

The system of the Brazilians of hunting the Indians for slaves exists to this day in all its atrocities. These slaving expeditions, or descimentos, from political motives are always directed towards the contested boundaries; and their practice is, when arrived at a populous Indian village, to await the mantle of the night in ambush, and to fall over their unsuspecting victims when enjoying the

Slavery expeditions of the Brazilians against the Indians.

first sleep. By setting their cabins on fire and discharging their muskets they create consternation, and succeed in securing the greater part of the former peaceful inhabitants. I had thus the grief, while at the Brazilian boundary fort San Joaquim on the Rio Branco, in August 1838, to witness the arrival of a similar expedition, who surprised an Indian village near the Ursato mountains, on the eastern bank of the river Takutu, on the contested boundary of British Guiana, and carried forty individuals, namely, eighteen children under twelve years of age, thirteen women, and nine men, of whom only four were under thirty years of age, and two above fifty, into slavery. These abominable proceedings were carried on under the warrant of the district authorities.

Religious and Public Instruction.

The efforts which the local government and legislative bodies have made in British Guiana to promote religion and education, deserve the highest praise. There are few instances in colonial history, where in so short a time, and under difficulties of no common description, a country has made such rapid progress in the erection and endowment of places of worship and public instruction.

In the year 1796*, when the colony was first taken by the English troops, and in 1803, when it again surrendered, the only church in the colony was in Fort Island, with two ministers of religion, namely, the chaplain of the British forces and the minister of the Dutch

Religious
establish-
ment in
1796.

* V. A charge delivered to the clergy of the English church in British Guiana, the 18th July 1839, by the Right Rev. Bishop of Barbadoes, &c. Demerara, 1839.

reformed church. In 1802 a family having occasion to visit England, were under the necessity of taking their children with them unbaptized, from the want of a pastor to administer the very initiatory sacrament of our religion.

St. George's church was opened for the performance of Divine service in 1810, the colony churches in Georgetown and New Amsterdam in 1819 and 1820, the church of the Holy Trinity in 1825. The colony of Demarara and Essequibo was not divided into parishes until 1824, when there were not more than three clergymen for the religious necessities of a country, which, including Berbice, extended in length alone over a space of more than two hundred and eighty miles. Public schools, with the exception of the Saffon Institution, there were none. It was only at that period, that strenuous efforts were made to improve the heathen and uncivilized state of the colony, and we find that between the years 1824 and 1831, upwards of 350,000 guilders, or about £26,000, were expended on the building of churches and parsonages; independently of which, large sums were voluntarily contributed by individuals for that purpose. On the estimate for the year 1832, a sum of 200,725 guilders, equal to £14,337, was placed for the support of the ecclesiastical establishment of that year alone*. It consisted in 1836 of seven rectors and one curate attached to the established church of England, two ministers to the church of Holland, five ministers to the church of Scotland, two priests to the Roman Catholic church, twelve catechists and schoolmasters. The annual sum paid to the clergymen, catechists, and schoolmasters and schoolmistresses, amounted to 135,450 guilders, equal to about £10,000. These expenses are borne solely by the inhabitants by taxes levied on them, and

Religious
establish-
ment in
1836.

* R. Montgomery Martin, British Colonial Library, vol. v. p. 157.

the Roman Catholic clergy are placed on the same footing as the clergy of the established church, or those of the Dutch or Scotch persuasion.

From England, through the bishop of the diocese, there has been received, in 1837, by means of the parliamentary grant or otherwise, about £5000 towards chapels and schools. From the colonial fund, there has been paid in 1837, £3407 towards the erection of schools or the procuring of teachers. The number of persons who received instruction in 1838, in British Guiana, amounted to 11,363, namely, 4683 adults and 6680 children.

British
Guiana
erected into
an archdea-
conry :
number of
churches,
school-
houses, &c.

In 1838, the province of British Guiana was erected into a separate archdeaconry within the diocese of Barbadoes, and the number of the clergy of the church of England has been increased to eighteen, while the instruction is confided to twenty-eight schoolmasters, exclusive of schoolmistresses, and the ten colonial clerks and catechists. The total number of ecclesiastical buildings in connexion with the established church of England, together with the parish churches appropriated to the use of the kirk of Scotland, amounts to not less than forty-seven, besides eight private estate schools.

The Christians who confess the Roman Catholic faith are now under a titular bishop or vicar apostolic*, to whose establishment five priests and several schools are attached.

I have yet to allude to the eight places of worship and public instruction which are under the care of the Missionaries of the Wesleyan and London Missionary Societies and the Mico Charities, whose faithful activity has produced the best results.

* At present, the Right Reverend Dr. Clanc, Bishop of Oriense, a man generally respected for his worth and learning.

The estimate of the amount required to be raised by taxation in the colony of British Guiana for the service of the year 1839, is 633,366 dollars, 4cts., of which the provision for the respective religious establishments throughout the colony, amounts to 108,975 dollars, (equal to £22,942 sterling) or about the sixth of the whole sum necessary for the public service of the colony for that year.

Guiana sets certainly a bright example for promoting religion and diffusing public instruction throughout the colony. The above sum is only raised by taxation, but numerous are the contributions of communities and private individuals, which are not included in that amount. But if the benevolent of Great Britain should imagine that their pecuniary aid is not more required, they labour under a great mistake : as much as has been done, a great deal is left to be accomplished in order to spread religion and public instruction. The labouring people must not be left in their altered condition to their own resources ; and with the avidity which they possess to seek after education, we have an inducement to believe that the negro will be rendered worthy of a state of freedom. The colonists cannot be supposed to have the means of providing any thing approaching to the amount which is necessary to spread religious instruction and moral and intellectual improvement to the required extent among the people, and the realization of this hope depends, therefore, from the benevolent and affluent in Great Britain.

The Indian alone, the owner of the soil which Europeans have usurped, and peopled with the descendants of Africa, he alone is comparatively neglected, and but little care has been evinced to impart to him Christian knowledge, and the adoption of the habits of civilized life. The only attempts which hitherto have been made to

Mission to
the Indians
neglected.

their conversion since the colony is under the British domain, emanated from the mission at Bartica Point, at the confluence of the Mazaruni with the Essequibo; and the establishment of a Mr. Peters at Caria-Caria on the left bank of the lower Essequibo, whose zealous and disinterested endeavours to preach the Gospel to the aborigines have been so far crowned with success, that he presides now as a religious teacher over a community of about sixty converted natives of the Arawaak nation, who, out of their own means, erected a neat chapel, capable of containing two hundred and fifty people. Their example may serve as another proof of the anxious desire manifested by the Indian to participate in the advantages of civilized life and religious instruction. In 1837, the Indians at the river Marocco, who are mostly emigrants from the former catholic missions at the Caroni, were given under the charge of a Roman catholic priest.

Failure of a protestant mission to the Macusi Indians, in consequence of Brazilian interference.

A mission to the Macusi Indians promised great success. A protestant clergyman, the Rev. Mr. Youde, settled at Pirara, a village at our undetermined southwestern boundary, and the Indians in the neighbourhood soon collected around him, and evinced the greatest anxiety to be instructed in the word of God, and our language. I have seen from three to four hundred Indians on a Sabbath, dressed according to their circumstances, and in an orderly manner, assembled within a rude house of prayer built by their own hands, to receive instruction in the holy word of God. The mission was not established many months, when the Brazilian government of the upper and lower Amazon despatched a detachment of militia, and took possession of the mission under the plea that the village belonged to the Brazilian territory. The missionary of the church of England was accused of

having alienated the Indians from the Brazilian government, and instructed them in the English language and religion, and received an injunction to leave the village. The Indians, fearing the Brazilians might conduct them into slavery, dispersed in the forest and in the mountains, and the work which promised such favourable results was destroyed.

It is to be hoped that the spiritual and temporal destitution of the aborigines in British Guiana may obtain the consideration of this government. But few are left of those races, who at the first arrival of Europeans densely peopled this vast continent. Would it not be worthy of an enlightened government, not only on religious, but likewise on political grounds, to advise some plan for the amelioration of their forlorn situation? Like the African, they are the descendants of our common parent, and have the same claim upon our pity and protection.

Public Income and Expenditure.

The revenue, on an average of four years, of Demerara and Essequibo amounts to £70,000, and of Berbice to £20,000; the total expenditure in Demerara and Essequibo to £65,000, in Berbice to £18,000. These sums do not include an item of £45,000, incurred for military protection. The revenue and expenditure of the colony is, however, more distinctly learned from the subsequent table.

The expenditure for 1839 was estimated, for the counties Demerara and Essequibo at £73,912; for the county Berbice, £29,944, which sum was to be raised by a tax on produce; a tax on an annual income of 500 dollars and upwards; duties upon all importations not being of the origin or manufacture of Great Britain; a tax on horses and carriages, colony crafts of all descriptions, cart licenses, shooting or gun licenses, hucksters' licenses, wine

and spirit duties, liquor licenses, tonnage and bacon duty*. Tax on transient traders, &c., &c.

The civil list or expenditure, for salaried officers of the colonial government and courts of justices, &c., amounts, for British Guiana, to £19,592, of which sum the counties of Demerara and Essequibo pay three quarters, and the county Berbice one quarter. Berbice, which continues with a distinct staff of government, has a separate estimate, which causes the inhabitants of that county to be more highly taxed than those in Demarara and Essequibo, and which in some instances amounted to three hundred per cent. above that of the latter counties.

Revenue and Expenditure of the Colony of British Guiana.

| Year. | Demerara & Essequibo. | | Berbice. | | Total. | |
|-------|-----------------------|--------------|----------|--------------|----------|--------------|
| | Revenue. | Expenditure. | Revenue. | Expenditure. | Revenue. | Expenditure. |
| | £ | £ | £ | £ | £ | £ |
| 1833 | 47,273 | 38,997 | 23,239 | 16,331 | 70,512 | 55,328 |
| 1834 | 81,417 | 45,923 | 20,847 | 18,503 | 102,164 | 64,426 |
| 1835 | 53,359 | 55,075 | 14,208 | 16,634 | 67,267 | 71,709 |
| 1836 | 87,885 | 97,371 | 18,196 | 16,575 | 106,081 | 113,946 |

Later details are wanting ; the receipts in the office of the Colonial Receiver for the counties Demerara and Essequibo amounted, from the 1st of January until the 30th of June, 1838, to £27,660 4s., and for the same period in 1839 to £32,389 14s., showing an excess of £4729 10s. as compared with 1838, although there is a diminution of £6557 7s. in the item of import duties, in consequence of the import duties on British manufactures having been disallowed by the Home Government since July 1838. The rum duty for the six months, from the 1st of January to the 30th of June, netted £4288 15s.

* Forty cents per ton. The seamen are entitled, if sick, to go to the seamen's hospital, free of any charge to the ship.

The coins current in the colony are British half-crowns, shillings, and sixpenny pieces, colonial silver coinage, and Spanish dollars, half-dollars, and quarter-dollars. Monetary system.

The colonial coinage consists of three-guilder, two-guilder, and one-guilder pieces, and $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ guilder pieces. There are no colonial gold or copper coins in circulation.

The paper currency of Demerara and Essequibo, which, in 1832, amounted to 2,199,758 guilders, equal to £157,126, was secured on funded property and colonial security. The necessary orders have been given by the colonial government for its redemption. The amount of paper currency in circulation in Berbice amounted on the 31st December, 1834, to 426,099 guilders, equal to £30,436, not secured on funded property, but merely on the ordinary and extraordinary revenue of the colony. This sum has offered therefore a serious impediment for having only one estimate for the colony of British Guiana, and an equalization of the taxes of Berbice to those of Demerara and Essequibo. This object has been happily accomplished, and the redemption of the paper currency is to be effected by the acre money and the sale of the second depth of land.

The par of exchange is 12 guilders per pound sterling, but of late years it has been fluctuating between 13fl. and 15fl. The rate of exchange in all government or public transactions is fixed at 14fl. per pound sterling. According to an ordinance of the legislative council, accounts are now kept in dollars and cents, at the rate of 4s. 4d. sterling for the dollar.

There is, in the colony, a branch of the West India Colonial Bank, and a local establishment called the British Guiana Bank. Banks. The latter consists of six thousand shares at 700 guilders (equal to £50 sterling) each, which have all been taken up by parties within the colony, and

fifty per cent. had been paid up thereon in June 1838. The prosperous state of the bank may be learned from the report published at the half-yearly meeting in January 1840, according to which an interest of upwards of eleven and a half per cent. per annum had been realized on the bank's paid-up capital stock, of which, however, only four per cent. for the half year were paid up, leaving the balance for the reserved funds. The chief offices of both banks are in Georgetown, with branches in New Amsterdam.

Weights
and
measures.

Principally steelyards from 1 to 3500lbs. are used for weighing; there is a difference of 10 per cent. between Dutch and English weights, namely 110lbs. Dutch = 100lbs. English. The English yard is generally adopted as long measure; the Dutch ell of 26 inches Rhymland is equal to 27 inches English. The English gallon is the fluid measure in use.

The property annually created by the productions of the land, animal food, and fish, merchandize, made, &c., is estimated at £3,789,166; the property moveable and immoveable, including uncultivated land, public property, as forts, wharfs, churches, forts, barracks, roads,* canals, &c., at £24,020,000. The abstract appraisement of Georgetown amounted, in 1836, to £586,934, in 1839 to £712,969, showing an increase of the value of buildings and lots in three years of £132,035.

Staple Products and Commerce.

The staple products of the colony consist of sugar, rum, coffee and cotton.

The following historical records and tables exhibit the state of cultivation of British Guiana at different periods.

The first record which we possess of the produce ex-

* Full 250 miles of public roads, averaging £600 a mile.—Montgomery Martin's History of the West Indies, vol. ii. p. 173.

ported from the colonies Essequibo and Demerara, consisted, in 1747, of 559 tierces, or half-hogsheads, of sugar, which were carried to Europe in two schooners. About this time there must have been a great influx of labourers, as the export rose the subsequent year (1748) to 2292 hogsheads of sugar. In 1752, they commenced to cultivate cotton and coffee, but the export amounted only to one bale of cotton and one bag of coffee. The exports in 1761 were only 878 hogsheads of sugar, 28 bales of cotton, and 45 tierces of coffee.

In 1764 the total number of estates under cultivation on the banks of the rivers Essequibo and Demerara, consisted of 130, which produced that year 2956½ hogsheads of sugar, 211 bags of coffee, and two bales of cotton, which produce was sent in eight ships to Europe.

In 1773 the exports amounted to 8613 bags, and 181 bales of cotton, 3775 hogsheads of sugar, and 1001 tierces of coffee.

In 1775 19,090 bags and 189 bales of cotton, 2317 tierces of coffee, and 4939 hogsheads of sugar were exported.

In 1796, General Whyte, with three British regiments, took possession of Demerara and Essequibo, and under the protection of Great Britain, agriculture and commerce made rapid progress; and such was the effect of British capital and enterprise, that, in 1803, consequently seven years after having been taken possession of, the exports were raised to 19,638 hogsheads, 213 tierces, and 161 barrels of sugar; 4887 puncheons of rum; 46,435 bales of cotton; 9,954,610lbs. of coffee; and 311 casks of molasses; requiring 394 vessels for their transport. Twenty years after, namely in 1823, the exports consisted of 51,360 hogsheads, 449 tierces, 2470 barrels of sugar; 15,781 puncheons, 2568 hogsheads of rum; 9587 bales

of cotton; 8,084,729lbs. of coffee; 19,634 hogsheads, 230 tierces, and 269 barrels of molasses, and although the number of vessels which were required to transport this produce to Europe amounted only to 368, consequently 26 less than in 1803, we may suppose that their tonnage was much heavier.

The following return, given on oaths, shows the productions of Demerara and Essequibo, for periods of three years each.

| Years. | Sugar. | Coffee. | Cotton. |
|------------|--------------|------------|-----------|
| | lbs. Dutch.* | lbs. | lbs. |
| 1823-24-25 | 213,478,633 | 17,779,473 | 6,808,913 |
| 1826-27-28 | 239,556,975 | 13,897,083 | 7,389,373 |
| 1829-30-31 | 262,709,559 | 7,059,431 | 2,252,557 |

It will be observed, that while sugar has been cultivated during the last three years to a greater extent, coffee and cotton have been neglected.

The following tables exhibit the number of estates in British Guiana, in 1831, 1832 and in 1839.

DEMERARA AND ESSEQUIBO.

| Parishes. | Number of Estates in May, 1832. | | | | | | |
|---------------------------|---------------------------------|------------------|--------|--------|-------------------|--------|-------|
| | Sugar | Sugar and Coffee | Cotton | Coffee | Coffee and Cotton | Timber | Farms |
| St. Mary | 18 | 0 | 5 | 0 | 1 | 0 | 7 |
| St. Paul | 14 | 3 | 6 | 0 | 2 | 0 | 1 |
| St. George and St. Andrew | 4 | 1 | 0 | 4 | 0 | 0 | 0 |
| St. Matthew | 6 | 11 | 0 | 5 | 0 | 0 | 0 |
| St. Mark | 11 | 3 | 0 | 16 | 0 | 2 | 0 |
| St. Swithin | 2 | 9 | 0 | 2 | 0 | 0 | 0 |
| St. Luke | 13 | 6 | 0 | 3 | 0 | 2 | 2 |
| St. Peter | 28 | 0 | 0 | 0 | 0 | 1 | 0 |
| St. James | 20 | 0 | 0 | 0 | 0 | 1 | 0 |
| St. John | 18 | 2 | 0 | 1 | 0 | 2 | 0 |
| Trinity | 20 | 1 | 1 | 2 | 1 | 1 | 0 |
| Total number ... | 154 | 36 | 12 | 33 | 4 | 9 | 10 |

* 112lbs. Dutch equal to 112lbs. 4oz. avoirdupois.

| Parishes. | Number of Estates in December 1839. | | | Remarks. |
|----------------------------------|-------------------------------------|-----------------------|-----------------------|---|
| | Sugar. | Coffee and plantains. | Cotton and plantains. | |
| St. Mary | 18 | 3 | 6 | Ninety-four lots entirely uncultivated. Seven uncultivated, which have been previously in cotton. |
| St. Paul | 17 | 0 | 9 | |
| St. George and } St. Andrew } | 4 | 2 | 0 | |
| St. Matthew..... | 16 | 9 | 0 | Fifteen lots either abandoned, or cultivated with plantains to a small extent. |
| St. Mark | 13 | 17 | 0 | |
| St. Swithin | 14 | 0 | 0 | Forty-four lots either abandoned, or affording a small supply of firewood. |
| St. Luke | 17 | 2 | 0 | |
| St. Peter | 27 | 0 | 0 | Fifteen entirely abandoned, a few only with a limited cultivation of plantains. |
| St. James..... | 20 | 0 | 0 | |
| St. John | 20 | 4 | 0 | Six abandoned. |
| Trinity..... | 19 | 6 | 0 | |
| Total | 185 | 40 | 15 | The six in the second column are partly in coffee, partly in cotton and plantains. |

BERBICE.

Comparative table of the number of Estates in cultivation in Berbice during the years 1831 and 1839.

| District. | Number of Estates. | | | | | |
|--------------------------------|--------------------|-------|---------|-------|---------|-------|
| | Sugar. | | Coffee. | | Cotton. | |
| | 1831. | 1839. | 1831. | 1839. | 1831. | 1839. |
| West sea-coast of Berbice ... | 6 | 7 | 0 | 0 | 5 | 2 |
| West side of Berbice river ... | 3 | 6 | 18 | 15 | 0 | 0 |
| East side of Berbice river ... | 6 | 8 | 19 | 14 | 0 | 0 |
| West side of Cauje creek ... | 2 | 2 | 5 | 4 | 0 | 0 |
| East side of Cauje creek..... | 6 | 6 | 1 | 0 | 0 | 0 |
| East coast canal | 2 | 2 | 0 | 0 | 0 | 0 |
| East coast | 0 | 0 | 0 | 0 | 2 | 0 |
| Corentyn coast | 6 | 6 | 0 | 0 | 2 | 2 |
| Total | 31 | 37 | 43 | 33 | 9 | 4 |

The subsequent table exhibits the produce made in British Guiana during the stated periods, and rests upon government returns.

BRITISH GUIANA.

A statement of the quantity of produce made in the following years.

| Year. | Sugar in lbs. | Rum in gals. | Molasses in gals. | Coffee in lbs. | Cotton in lbs. | Value of plan- tains and cattle sold in £. |
|-------|------------------|-----------------|----------------------|-------------------|-------------------|---|
| 1832 | 96,381,959 | 2,820,594 | 4,502,473 | 6,410,535 | 1,157,709 | 44,900 |
| 1833 | 99,106,827 | 2,516,138 | 5,121,301 | 4,490,596 | 954,957 | 56,910 |
| 1834 | 81,085,483 | 2,631,630 | 3,288,586 | 3,035,556 | 926,944 | 37,980 |
| 1835 | 107,586,405 | 3,743,687 | 3,105,421 | 3,065,742 | 867,942 | 41,230 |
| 1836 | 107,806,249 | 2,980,296 | 4,035,569 | 5,875,732 | 656,902 | |
| 1837 | 99,851,195 | 1,975,260 | 3,405,906 | 4,066,200 | 803,200 | |
| 1838 | 88,664,885 | 2,068,052 | 3,132,675 | 3,143,543 | 641,920 | |

A statement of the quantity of produce made in 1833 and 1836 in Demerara and Essequibo, and in Berbice, respectively.

| Produce. | Demerara and Essequibo. | | Berbice. | |
|--------------------------|-------------------------|------------|------------|------------|
| | 1833. | 1836. | 1833. | 1836. |
| Sugar in lbs. | 87,248,821 | 85,982,756 | 11,858,006 | 21,823,493 |
| Rum in gallons | 2,187,234 | 2,348,920 | 339,398 | 631,376 |
| Molasses in gallons..... | 4,636,294 | 3,491,991 | 485,007 | 543,578 |
| Coffee in lbs. | 2,587,744 | 2,635,741 | 1,871,852 | 3,239,991 |
| Cotton in lbs. | 538,126 | 466,078 | 416,731 | 190,824 |

The exports of the products in 1836 were made to various countries, in the following proportions.

| Countries. | Sugar. | | | Rum. | | | Cotton. | Coffee. | Molasses. |
|------------------------------|------------|----------|----------|------------|------------|----------|---------|---|-------------|
| | Hogsheads. | Tierces. | Barrels. | Puncheons. | Hogsheads. | Barrels. | Bales. | | Casks. |
| United Kingdom | 65,448 | 4348 | 3814 | 19,778 | 5202 | 1605 | 3176 | 1,489,550 lbs. 3033 tierces 1429 bags | 29,278 |
| British N. American Colonies | 456 | 97 | 144 | 5312 | 251 | 37 | | 450 lbs. 6 bags | 6402 |
| British West Indies | 1179 | 59 | 6 | 2057 | 93 | | 339 | 7300 lbs. 35 tierces 10 bags | 1377 |
| Foreign Countries | 411 | 173 | 34 | 954 | 88 | 5 | | 208,450 lbs. | 1726 |
| Total | 67,494 | 4677 | 3998 | 28,101 | 5634 | 1647 | 3515 | 1,705,750 lbs. 3068 tierces 1445 bags | 38,783 |
| Total value | 1,529,918£ | | | 157,003£ | | | 40,149£ | 247,444£ | 160,865£ |
| Grand Total..... | | | | | | | | | 2,135,379£. |

The exports of British Guiana for the year 1839, including the exports from Berbice to 18th December, 1839, amount to

35,845 hogsheads, 2135 tierces, 2396 barrels of sugar.

13,245 puncheons, 3817 hogsheads, 882 barrels of rum.

11,664 casks, 85 hogsheads, 14 barrels of molasses.

1,356,700 lbs. of coffee.

912 bales of cotton.

Showing a decrease, as compared with 1838, of

12,967 hogsheads of sugar.

2340 puncheons, 234 hogsheads, 855 barrels of rum.

11,302 casks of molasses.

1,738,790 lbs. of coffee.

197 bales of cotton.

But if the exports of 1839 be compared with those of 1836, (for which comparison the preceding table of exports to the various countries affords the necessary data,) we find the frightful decrease of—

| | | | |
|---|---|--------------------------|---|
| 31,649 hogsheads | } | sugar valued at £665,748 | } at the present prices of colonial produce: |
| 2542 tierces | | | |
| 1602 barrels | | | |
| 14,856 puncheons | } | rum valued at £240,436 | |
| 1817 hogsheads | | | |
| 765 barrels | | | |
| 2603 bales of cotton, valued at £31,236 | } | coffee valued at £98,926 | |
| 3668 tierces | | | |
| 1445 bags | | | |
| 11,302 puncheons of molasses valued at £113,020 | | | |

which deficiency of produce amounts to nearly 1,150,000*l.*, an item of sufficient importance to attract the attention of every one who is interested in the welfare of the British colonies. The decrease of duties to the Exchequer, in 1839, arising from produce cultivated in British Guiana, if compared with 1836, must have amounted to 1,500,000*l.* These duties amounted in 1833 to 2,728,661*l.*

Imports.

The actual amount of the value of British and foreign goods shipped to British Guiana will be indicated by the following table.

| Year. | British Goods. | | | Amount of all imports in British Guiana, British and Foreign. |
|-------|-------------------------|----------|---------------|---|
| | Demerara and Essequibo. | Berbice. | Total Amount. | |
| | £ | £ | £ | £ |
| 1832 | 337,263 | 50,936 | 338,199 | 573,195 |
| 1833 | 337,482 | 54,038 | 391,520 | 557,574 |
| 1834 | 410,764 | 52,687 | 463,451 | 853,628 |
| 1835 | 439,773 | 71,588 | 511,361 | 615,106 |
| 1836 | 770,839 | 140,738 | 911,577 | 1,204,560 |

I have not been able to procure later details with regard to imports in British Guiana. In July 1838 the import duties on British goods were disallowed, and their importation does not rest on authentic returns. But the increasing consumption of imports by the mass of the population renders an estimate of 1,500,000*l.* for the amount of all imports by no means improbable.

Statement of the Shipping employed in the trade of the Shipping colonies Demerara and Essequibo, and Berbice.

| Year. | Inwards. | | | | | | Outwards. | | | | | |
|-------|-------------------------|--------|------|----------|--------|------|-------------------------|--------|------|----------|--------|------|
| | Demarara and Essequibo. | | | Berbice. | | | Demarara and Essequibo. | | | Berbice. | | |
| | Vessels. | Tons. | Men. | Vessels. | Tons. | Men. | Vessels. | Tons. | Men. | Vessels. | Tons. | Men. |
| 1831 | 601 | 89,760 | 5381 | 342 | 21,208 | 1385 | 563 | 85,867 | 5035 | 246 | 20,128 | 1409 |
| 1832 | 571 | 84,166 | 5003 | 318 | 25,790 | 1725 | 567 | 82,688 | 4873 | 338 | 26,324 | 1785 |
| 1833 | 633 | 93,809 | 5554 | 289 | 23,073 | 1573 | 620 | 93,972 | 5623 | 312 | 24,390 | 1686 |
| 1834 | 630 | 90,221 | 5377 | 286 | 20,571 | 1459 | 616 | 86,933 | 5198 | 294 | 20,753 | 1485 |
| 1836 | 543 | 88,909 | 5245 | 173 | 22,516 | 1340 | 543 | 92,064 | 5333 | 185 | 23,941 | 1435 |

In the absence of any detailed information for later years the subsequent table is given.

PORT OF GEORGETOWN, DEMERARA.

An account of the number and tonnage of vessels entered inwards and cleared outwards in the years 1837 and 1838, distinguishing vessels with cargoes from those in ballast.

| Year. | Inwards. | | | | Outwards. | | | |
|-------|---------------|--------|-------------|-------|---------------|--------|-------------|--------|
| | With Cargoes. | | In Ballast. | | With Cargoes. | | In Ballast. | |
| | No. | Tons. | No. | Tons. | No. | Tons. | No. | Tons. |
| 1837 | 502 | 89,348 | 30 | 1083 | 378 | 70,160 | 128 | 15,873 |
| 1838 | 505 | 93,618 | 31 | 1206 | 310 | 60,407 | 229 | 35,152 |

Although the increasing demand of British Guiana for manufactured goods and other supplies has occasioned an additional tonnage inwards, the number of vessels outwards in ballast, it cannot be denied, is but too true a criterion of the deficiency of export. The tonnage inwards was in 1833 for Georgetown 93,800 tons, outwards 94,000 tons; and it is officially acknowledged that

the real decrease in the outward tonnage in 1838 as compared with 1837 was about 10,000 tons.

The number of vessels built in the colony of British Guiana from 1814 to 1837, amounted in

Demerara and Essequibo to 132 or 4717 tons.

Berbice 23 or 1015 tons.

The comparatively small number of vessels built in the colony, where the indigenous woods insure such advantages for naval architecture, is solely to be ascribed to the want of labour, which renders the expenses too high to afford much inducement to construct even the vessels which are wanted for the carrying-trade between the plantations and the ports of Demerara and Berbice in the colony itself.

There are at present four steam-boats in the colony. The largest, which belongs to the local Steam Navigation Company, is of ninety-horse power, and plies between Georgetown and New Amsterdam in Berbice, and the islands in the mouth of the Essequibo and the coast west of that river. Another of twenty-five-horse power plies between the island Leguan, in the mouth of the river Essequibo, and Georgetown. A smaller steamer is employed as a ferry-boat between Georgetown and the western shore of the river Demerara; and the fourth is attached to the extensive wood-cutting establishment of Mr. Patterson, at Christiansburg, in the river Demerara.

A railroad from Georgetown to Mahaica has been projected for some time past, and the actual survey for its construction has already taken place; but the plan has not advanced further as yet. The Lamahak canal, by which not only Georgetown receives a supply of fresh and wholesome water, but which affords likewise irrigation to a number of plantations, deserves notice as a highly useful public work.

*Form of Government, Civil Constitution, &c., of
the Colony.*

Previously to 1831 Berbice continued to be a separate colony, having its own chief magistrate, its civil and criminal courts, and its own current money ; but on July 21, 1831, the colonies of Demerara, Essequibo, and Berbice were united into one colony, under the name of British Guiana ; and Major General Sir Benjamin D'Urban was the first governor of these united provinces.

The civil government is vested in the governor and court of policy, according to forms which prevailed when the colony was acquired by Great Britain. This supreme court, or colonial parliament, consists of the governor, the chief justice, attorney general, collector of Her Majesty's Customs, and government secretary *ex officiis*, and an equal number of unofficial persons elected from the colonists by the college of electors or kiezers.

The college of electors consists of seven members, who are elected by the inhabitants for life. The votes are sent into the government secretary's office, deposited in a sealed box, and opened in the presence of the governor and not less than two other members of the court of policy. The qualification of electors was formerly the possession of twenty-five slaves ; it is at present possessed by every person who pays taxes to the amount of five pounds sterling.

College of
electors.

In case of vacancies the college of electors nominates two candidates, from which the court selects one as sitting member ; which nomination is notified in the Gazette. The unofficial or colonial members of the court of policy serve for three years, and go out by rotation. One or more must vacate his seat every year, but they may be re-elected. The governor, as president of the court of policy, has a casting-vote ; every member has

a vote. Independently of his having a casting-vote in the decision of all matters under discussion, the governor has an absolute veto on all laws and ordinances that may be passed by a majority ; and no ordinance can have the effect of law until it has his approval. The Queen in council may enact or disallow any law.

College of
financial
representatives.

The college of financial representatives consists of six members, chosen by the inhabitants, like the electors; their term of service is two years.

The court of policy decides on all financial regulations; but when they have prepared an estimate of the expenses for the year, and the mode of taxation and the different items have been discussed and acceded to by a majority, the estimates are handed over to the financial representatives, who in concert with the court of policy examine the charges. In the combined court, every member, whether of the court of policy or financial representatives, has an equal vote. The court of policy combined with the financial representatives having approved of and sanctioned the ways and means, they are passed into law.

Judicial
depart-
ment.

The supreme court of civil justice in British Guiana consists of a chief justice, two puisne judges, a secretary of the chief justice, a registrar, and a sworn accountant. All causes for civil actions and debt are in the first instance heard in what is called the rolls court, before one of the judges, who reports his opinion to the whole court. That court either confirms or rejects this judge's decision. If the cause of action exceeds the value of five hundred pounds sterling, an appeal from the decision of the supreme court lies to the Queen in council.

The laws of Holland, but particularly the laws, statutes, and resolutions of the States-general, are to be followed by the judges of the court in giving judgement.

The supreme court of criminal justice is composed of the three judges of the civil court, and of three assessors, qualified by certain regulations, and drawn by ballot from the box in which the names of all who may have been summoned as assessors are deposited by the clerk of the court: they are however open to challenge by the accused person. These assessors sit on the bench, and the six decide, by the majority of their votes, on the guilt or innocence of the accused person, the casting-vote resting with the chief justice. The sentence must be delivered in open court; and the vote of guilty or not guilty of each individual, whether judge or assessor, is publicly recorded.

The inferior criminal courts are held by the high sheriff of British Guiana at Georgetown, and in Essequibo and Berbice by the sheriffs of these districts or counties.

The sheriff, as chairman, and three magistrates constitute an inferior criminal court; and they can decide on all cases of petty larceny and misdemeanors, but in many instances the sheriff is the sole judge. Not less than three inferior courts are required by law to be held in each county every month.

By virtue of the Act which dissolved slavery, certain tribunals were constituted to decide in matters of dispute between the labourer and the employed, and over which special magistrates are appointed to preside, who receive their appointment from the home government: these tribunals are continued under the new system, and there are thirteen special justices and a circuit magistrate in British Guiana, with a number of constables to assist them in the execution of their duty.

The regulation of the intercourse of the aboriginal inhabitants with the colony, their preservation, and the promotion of their welfare, were formerly vested in six pro-

tectors, six postholders, and three assistants. These have been substituted by three superintendents of rivers and creeks, and six postholders. The Indians are little benefited by the present management, and the establishment executes the functions of a police in the interior, rather than effects the purposes avowed when in 1794 the protectors and postholders were called into existence.

Police establishment.

The police establishment consists of an inspector-general of British Guiana, and a clerk ; two sub-inspectors for the counties Demerara and Essequibo, and one sub-inspector for the county of Berbice ; fifteen serjeants and one hundred and five constables for the counties of Demerara and Essequibo ; and six serjeants and thirty-two constables for the county of Berbice.

Jails.

There are four jails in Demerara and Essequibo, namely, in Georgetown, Mahaica, Wakenaam, and Capoey, one each ; and four in the county of Berbice, namely, in New Amsterdam, in the parish of St. Clement and St. Catherine, in the parish of St. Michael, and in the parish St. Saviour.

State of crime.

The number of offenders brought before the tribunals during the years 1833, 1834, 1836, is contained in the following table.

| Counties. | Years. | Number of Prisoners. | Number of Debtors. | Number of Misdemeanors. | Number of Felons. | Number of tried Prisoners. | Number of untried Prisoners. | Deaths. |
|-------------------------|--------|----------------------|--------------------|-------------------------|-------------------|----------------------------|------------------------------|---------|
| Demerara and Essequibo. | 1833 | 156 | 6 | 126 | 24 | 44 | 6 | 2 |
| | 1834 | 2513 | 10 | 1926 | 11 | 1937 | 576 | 1 |
| | 1836 | 2411 | 6 | 2380 | 25 | 1729 | 682 | 1 |
| Berbice. | 1833 | 32 | — | 28 | — | 2 | 2 | — |
| | 1834 | 396 | — | 393 | 3 | — | — | — |
| | 1836 | 344 | 1 | 32 | 2 | 276 | 68 | — |

Military defence.

All white and other free male inhabitants between the age of sixteen and forty-five were formerly compelled to

serve in the militia, but since the abolition of slavery the militia laws were abrogated, and the colonial militia has been since disbanded. The garrison consists at present of a regiment of the line (the 76th) and a detachment of the first West India regiment. The entrance to the port of Demerara is protected by Fort Frederick William, and to the port of Berbice by three batteries, two on the eastern side, and the other, called York redoubt, on the western bank opposite Crab Island. In 1739 an attempt was made to build a fort at Crab Island, but this was found impracticable. A strong battery has been erected at the junction of the Canje. The inconsiderable depth of water along the coast, and the nature of the tides and muddy shores, are the best defence along its coast-line.

Towns and Villages.

GEORGETOWN, the capital of British Guiana, formerly called Stabroek, is situated in latitude $6^{\circ} 49' 20''$ N. and longitude $58^{\circ} 11' 30''$ W. on the eastern or right bank of the river Demerara, and has a population of not less than 20,000 inhabitants*, of which about 16,000 are coloured. If we except Water-street, which is built close to the river, the streets are wide, traversed by canals; the houses erected of wood, seldom above two stories high; before them are verandas and porticoes, shaded by a projecting roof. They are generally surrounded by a garden or large trees, and separated from each other by canals or trenches. A small fortification built of mud and facines is called Fort William Frederick, and is a short distance from the mouth of the river Demerara, and within a mile of the town; to the eastward of it is

* It has been asserted, that the number of inhabitants in Georgetown amounted, according to the late census, to 25,000; but as the results of this census have not as yet been made public, I give that number merely as a report.

Camp-house, the residence of the officer commanding the troops. In the vicinity of Camp-house are placed two large hospitals, with kitchens, cisterns, &c. for the military, nearly opposite to which Eve Leary barracks have been erected, which for commodiousness are not surpassed in any other colony. The ordnance department, the quarters of the engineers, and the York and Albany barracks are further eastward. The lighthouse with the telegraph is situated between Fort Frederick William and Kingston district.

Georgetown was until lately divided into seven districts, namely, Kingston, North and South Cumingsburgh, Vlissingen, subdivided into Rob's Town and Lacey's town, Stabroek, Werk-en-Rust, and Charlestown; and the care and superintendence was vested in a committee entitled the board of police for Georgetown. It is now divided into eleven wards, in each of which a town councillor is selected by the inhabitants: the town councillors select a mayor. The mayor and town council have the management of the town funds, and form a court for the trial of petty offences committed within the district of the town.

The seat of government was formerly at the Island Borselen, but it was removed in 1774 to the east point of the river Demerara, and named Stabroek, which until 1812 was the general name for Georgetown. It formed a street running from the river towards the forest, and consists still of two rows of houses about a mile long. Facing the river, and within its district, is the new public building, which comprizes all the public offices. This building, which was erected of bricks and stuccoed, cost the colony upwards of 50,000*l.* sterling. The Scotch church, the market-house and the town guard-house are in the vicinity of the public buildings. A new and handsome church of brick in the Gothic style, estimated to cost not

less than 13,000*l.* sterling, is now in the course of erection on the site of St. George's church, the parish church of the capital. Christ church, a handsome building on the parade ground, in which a duly licensed minister of the Episcopalian church officiates, was erected upon shares. The Catholic congregation possess a church at Stabroek, which, since the erection of British Guiana into a vicariat apostolic under a titular bishop of Oriense, has been enlarged and formed into a cathedral. The Wesleyan congregation possess a chapel for public worship. There are two public schools in the parish of St. George, one for boys and one for girls; an infant school, and a school of the Mico charity, besides eight private schools. Two public papers, the Gazette and the Guiana Chronicle, are published on alternate days, each three times a week, and the publication of a third is just about being accomplished. Scientific institutions have from time to time been projected, but they perished either in the bud, or if they were established, they lingered a miserable existence and died a natural death. A spirit of apathy pervades the colonists with regard to the encouragement of scientific discoveries and inquiries. An amateur theatre was erected in 1828 in Charlestown by a subscription of several Dutch gentlemen, and in which, since it has become private property, theatrical representations or concerts, by amateurs or professional persons, have continued to be given from time to time. Two horse-races which generally take place towards the commencement and in the middle of the year contribute to the amusements, the more since they end in a well-attended ball. The frequency of private parties and balls may be conceived from the acknowledged hospitality of the West Indians. The colonial hospital is not adequate for the want of the colony, nor can its site be considered healthy.

It is, however, the intention of the local government to erect a new colonial hospital on another site; and a large sum has been voted by the legislature for that purpose. An hospital for the reception of sick seamen possesses every comfort; both institutions are placed under the superintendence of a physician of high standing. The bank for savings of labourers is under the superintendence of the governor and court of policy, and has produced happy results. It has been already stated that the two commercial banks in Guiana have their chief offices in Georgetown.

The shops and stores in Georgetown are very numerous, and offer every article which a European accustomed to luxury or refinement could desire; nor is there a want of the necessary articles for dress for the poorer classes, or the tools of the tradesman, which are to be obtained at so comparatively low a price that there is little or no difference between England and Demerara. Indeed many objects of English manufacture, as glass, paper, tobacco, refined sugar, &c., will be found cheaper in Demerara than in England, in consequence of there being neither home nor colonial duty on those articles, or on any other of English manufacture.

The market is well attended, and the average price of the best beef is about 8*d.* per pound, mutton 1*s.* 6*d.*, pork 9*d.*, wheat bread 4½*d.* the pound loaf. Fish and poultry are comparatively high; the labourers when in the state of slavery attended more to the raising of stock than they do now, and a good fowl cannot be had under 4*s.* The vegetable market offers lettuce, cucumbers, French beans, spinage, asparagus, &c., and the fruit market all the variety and delicacies of a tropical climate. A new and comfortable market-house is in the course of erection. A clerk with some inferior officers attends to

the necessary regulations for insuring order during the market hours, and to watch over the common interests. It may be noted as a happy sign, that Sunday markets, which until then had existed, were abolished in October 1839.

NEW AMSTERDAM, the capital of the colony of Berbice before it was united to Demerara and Essequibo, was commenced in 1796; the position of the former town of New Amsterdam, which was higher up, being found inconvenient, the colonists removed nearer to the mouth of the river Berbice, where a little above the junction of the Canje they laid the foundation to the present town. A fort had been built here as early as 1720. The town* extends at present for about a mile and a half along the Berbice, and is intersected by canals. Each house has an allotment of a quarter of an acre of land, generally insulated by trenches, which being filled and emptied with the tide prevent the accumulation of filth. The population amounted in 1833 to 2900 souls; the results of the present census have not transpired as yet. New Amsterdam affords a pretty aspect when entered from seaward. Crab Island is a short distance from the embouchure of the river, and occupies the mid-channel. It is low and bushy, and about a mile in circumference. From its northern and southern point extends a spit of sand, dividing the bed of the river into two navigable channels, of which the eastern has a depth of seventeen to twenty feet, the western only of eight to thirteen feet at high water. The island increases rapidly on its southern point, extending towards the eastern bank of the river, and threatens the destruction of the deeper channel.

* According to my observations, Mr. Sheriff Whinfield's house is in lat. 6° 15' N. and long. 57° 27' W.

Opposite Crab Island, and on the river's eastern bank, is the old Fort St. Andrew, a small low fortification, which consisted formerly of four bastions surrounded by a ditch and mounted with eighteen twelve-pounders. It is now in ruins; but its situation for defence is well selected, as an extensive swamp lies in the rear, and being separated from New Amsterdam by the river Canje, it cannot be commanded from any adjacent point. The barracks for the military and the quarters for the engineers and ordnance department, are erected on the junction of the Canje, and occupy a square, which is ballisaded and defended by a strong battery. There are three churches in New Amsterdam; namely, an Episcopalian, which has just been finished, a Scotch church, and a Lutheran church. The English and Scotch services were formerly held alternately in the only colony church which until lately the colony possessed. The Lutheran church, in which service is performed in the Dutch language, possesses the finest organ in British Guiana. The Catholic congregation have their chapel and ministers, and the Wesleyans had already a religious establishment in this town when the colony of Berbice laboured under every other spiritual destitution. There is a free school, which was formerly supported by voluntary contributions; the colonial government has of late assisted in defraying its expenses; there are besides eight private schools. A public paper, the *Berbice Advertiser*, is published twice a week. Theatrical performances, which have been lately established, contribute to the public amusements. The courthouse, opposite the Scotch church, is a spacious building erected of wood in which the different courts of justice hold their sessions. The commercial part of the town, with commodious wharfs and warehouses to land and receive the goods, fronts the river. The British

Guiana and the Colonial Bank have branch offices in New Amsterdam, and facilitate commerce. A new market-house has just been projected, and is no doubt by this time in the course of building. The town of New Amsterdam was healthy during the period the calamitous endemic disease prevailed in Georgetown. The tide has here free access to the wharfs, which are built upon piles, and thus the accumulation of filth is prevented*.

A ferry-boat plies between the town and the opposite bank of the river. Besides the opportunity which the steamer affords twice a week between Georgetown and New Amsterdam, an overland mail has been established to facilitate the communication between the two chief towns of British Guiana.

The village MAHAICA, built on the west bank of the river of Mahaica, with a few houses on its eastern bank, is the most thriving village in the rural districts of British Guiana. It possesses a church, a Wesleyan chapel, an apothecary's shop, and several stores for the sale of merchandize. The number of houses is estimated at eighty, with a population of six hundred souls.

The hamlet MAHAICONI, on the small river of the same name, consists of about thirty houses, with tradesmen and shops of different descriptions. Some settlements are springing up near the small river Abari; and as the high road from Georgetown to New Amsterdam leads through these villages, they are chiefly recommendable for industrious emigrants.

FREDERICKSBURGH, on the island Wakenaam, with

* While the above has been going through the press colony papers have come to hand which contain the opening speech of the Governor at the Colonial Legislature of 1840, in which he alludes to the same circumstance as the cause of the late prevailing sickness in Georgetown, which I mentioned p. 22.

several mercantile stores, and an apothecary's shop, is greatly increasing.

WILLIAMSTOWN, on the west coast of the river Essequibo, with fifteen houses, a good mercantile store, a church capable of holding five hundred persons, &c. The houses are principally inhabited by tradesmen of all colours.

About seven miles higher up is a village called CATHARINESBURG, with about fifteen houses, a Wesleyan chapel, a store, and an apothecary's shop.

Sixty-three emancipated labourers bought lately, for ten thousand dollars, the abandoned estate of Northbrok, on the east coast of Demerara, where they intend to found a village under the name of VICTORIA, as a token of gratitude and some memento of the emancipation which the purchasers witnessed and enjoyed. They were enabled to pay the purchase money principally from out of their savings since they obtained their freedom.

According to official returns, the number of new stores for the sale of dry goods, provisions, liquors, and merchandise in general, erected and established in the rural districts since the 1st of August, 1838, amounted in fourteen months to seventy-four; the number of settlers' cottages, for the same period, to two hundred and sixty-seven.

BRIEF HISTORICAL RECORDS
OF THE PRESENT COLONY OF BRITISH
GUIANA.

According to some authors Columbus discovered Guiana in 1498; others pretend the honour belongs to Vasco Nuñez, who landed on the coast of Guiana in 1504. It is likewise stated that the discovery of Guiana was accomplished by Diego de Ordas, of the kingdom of Leon, in the year 1531. He was one of the captains of Cortez in the conquest of Mexico. Sir Walter Raleigh ascended the Orinoco in 1595, and Hakluyt, the contemporary naval historian, mentions already the rivers Curitini (Corentyn), Berbice, Wapari (Abari), Maicawini (Mahaiconi), Mahawaica (Mahaica), Lemerare (Demerara), Devoritia or Dessekebe (Essequibo), Matoreeni (Mazaruni), Cuwini, (Cuyuni), Pawrooma (Pomeroon), Moruga (Morucca), Waini (Guainia), Barima, etc. as the most considerable between the Corentyn and Orinoco. The earliest accounts which we have relative to the settlement of this coast, state that in 1580 some inhabitants of Zealand, one of the provinces of the Netherlands, sent out vessels to cruize on the Amazon, and westward to the Orinoco, in quest of discoveries. They formed a settlement near the river Pomeroon, which they called Nieuw Zealand, and another at the Labari or Wapari, now Abari river, where there was

an Indian village called Nibie. A settlement was afterwards effected on the west coast of the Essequibo, from which they were driven in 1596 by a party of Spaniards and Indians; they removed, therefore, further upwards in the river, and succeeded in gaining possession of a small island at the junction of the Mazaruni and Cuyuni, called Kyk-overal, from the circumstance that it afforded a view of the three rivers Cuyuni, Mazaruni, and Essequibo. In 1613 the colony of Zealanders at the banks of the Essequibo was reported to be in a flourishing condition; and eight years afterwards, namely in 1621, the government undertook to supply the colonists with negro slaves from Africa. In 1626, van Peere, who with his companions had been driven from the Orinoco, commenced to settle at the banks of the river Berbice, and cleared a considerable extent of land between the Berbice and Corentyn rivers. In 1634, thirty passengers from West Friesland arrived at the island Mecoria between the rivers Cayenne and Wya, who settled and commenced cultivating tobacco and cotton. They found here some settlers from the Netherlands, and discovered on a rising ground the ruins of a French castle, which they repaired for their own protection. The English had commenced colonization about the same time at the great Coma, now Surinam river, sixty miles up, having been expelled from the little Coma, the present Comowini, by the Caribi Indians. They rebuilt here a large Indian village called Paramaribo, which had been destroyed by the natives at their approach. This village was commanded by Captain Marshall, with about sixty settlers; but being constantly annoyed by the natives, and the climate proving unhealthy, they abandoned it afterwards.

About 1640 the French possessed themselves of the present river Surinam, and inhabited Paramaribo. The

same reasons which induced the former settlers to abandon it, obliged likewise the French to leave their new colony, and to settle ultimately in Cayenne.

The English returned in 1652 to Paramaribo, and the Caribi Indians having removed from Wanica to the Coponam, they were more successful in forming a settlement.

In 1662 the whole colony was granted by Charles II. to Lord Willoughby, the then governor of Barbadoes, who named the principal river, wherein Paramaribo is situated, Surryham, in honour of the Earl of Surry; from which the whole colony took its name. The British Crown bought afterwards this colony from the heirs of Lord Willoughby, and exchanged it with the Dutch government in 1667 for New Holland, in North America, the present New York.

In 1657 the rivers Pomeroon and Morocco were settled anew by Zealanders, and the towns of New Zealand and New Middleburgh were erected on their banks.

The settlements on the Essequibo were taken in 1665 by the English, and afterwards plundered by the French, who destroyed the settlements on the Pomeroon. The same year a small English vessel of war sailed up the river Berbice, and attempted an attack of Fort Nassau, but was repulsed.

In the year 1669 the colony of Dutch Guiana, which then extended from the river Sinamari to the mouth of the Barima, which has its outflow in the Orinoco, was transferred from certain gentlemen owners in the towns of Amsterdam, Middleburgh, Flushing, and Veere, to the West India Company of Zealand.

The colony of Berbice was comprised in the charter of the West India Company; but an arrangement had been made in 1678 with the family of van Peere, of Flush-

ing, who were the founders, and it was granted to them in perpetuity. In 1712 a French flotilla under Admiral de Casse attacked the settlement, and exacted a contribution of 300,000 florins, which was finally paid by the mercantile house of van Hoorn and Company, who received in return three fourths of the colony. In 1720 the proprietors of Berbice not having sufficient capital for the cultivation of which the colony was capable, raised a loan of 3,200,000 florins, in 1600 shares of 2000 florins each, to be employed solely in the production of sugar, cocoa, and indigo, and from the realisation of this scheme commenced the flourishing state of the colony, and a fort was built near the junction of the Canje. Coffee was introduced in 1721 from Surinam; the first export of that bean, however, is not recorded till 1752, when it amounted to a single bag.

In 1732 a constitution of Berbice was enacted by the States General; the government to be administered by a governor and council.

The colonization of Essequibo and Demerara proceeded, meanwhile, very slowly: the Company's establishment at Nibie, on the Abari, received a constitution in 1739; but we have no notice whatever of colonization having advanced to the Demerara river until 1745, when the directors of the chamber of Zealand granted permission to Andrew Pieters to lay out plantations on the uninhabited river Demerara. The title of director-general was first assumed in 1751 by the chief officer of Essequibo and Demerara, Storm van S'Gravesande, who was then commandant.

A negro insurrection in 1763 threatened the flourishing colony of Berbice with destruction; this was not subdued till eleven months after by a squadron from the Netherlands under Colonel de Salve. Six years after the

woods were set on fire, as it was supposed by some rebel negroes; and the conflagration spread from the river Corentyn to the Demerara, devastating several plantations and destroying the forest.

The courts of policy and of criminal and civil justice were first established in Demerara at an island called Borselen, about twenty miles up the Demerara river; the seat of government was however removed in 1774 to the east point at the mouth of the river, and named Stabroek. X

In 1711 the British fleet under Sir George Rodney took possession of all the Dutch West India colonies. Such had been the want of shipping that the quantity of produce accumulated in Demerara and Essequibo was so great that these colonies were considered the richest prizes. At the peace of 1783 the whole of these colonies were restored to Holland, when they were almost immediately after taken possession of by the French, who built forts on both shores of the river Demerara at its mouth, and compelled the planters to furnish Negro-labour. In 1785 the courts of policy of Demerara and Essequibo were united, and their meetings directed to be held at Stabroek. In 1796 the colonies surrendered to General Whyte, who with three British regiments of infantry had been sent from Barbadoes. Lieutenant Colonel Hislop was left in the government; and the troops for the most part were quartered in the Fort William Frederick, one of those fortifications which had been constructed by the French. But the officers built huts for themselves without the walls, and thus laid the foundation of that district of Georgetown which is known as Kingston. The following year (1797) a party of Spaniards attacked the post on the Morocco river, but they were repulsed with

severe loss by a detachment of Dutch soldiers in British service, commanded by Captain Rochelle.

Under the protection of Great Britain, agriculture and commerce increased rapidly; and before these colonies were restored, at the peace of Amiens in 1802, to what was then called the Batavian Republic, the exports had risen to nearly 20,000 hogsheads of sugar, and about 10,000,000 pounds of coffee. They remained only for a few months in their possession, as on the breaking out of the war in 1803, Demerara and Essequibo surrendered to the British forces under General Greenfield, and Berbice to a detachment under Colonel Nicholson; since which time it has remained a British colony.

In 1812 all distinctions between the colonies of Demerara and Essequibo, whether of jurisdiction or otherwise, were abolished, the juridical establishment at Fort Island discontinued, and the courts of justice united in Demerara, and the name of Stabroek changed to Georgetown, which was declared the seat of government. The colonies Demerara and Essequibo and Berbice were finally ceded by an additional article to a convention between Great Britain and the Netherlands, signed at London on the 13th of August, to Great Britain, with the condition, that the Dutch proprietors should have liberty to trade with Holland under certain restrictions. An insurrection of the slaves on several estates on the east coast of Demerara broke out in August 1823; it was however soon quelled. Twenty of the insurgents were executed, and John Smith, of the London Missionary Society, convicted by a general court-martial of treasonable conduct in exciting the slaves to the revolt, was sentenced to death, but respited, and finally pardoned by the king, on condition of banishment from the West India colonies; he died in prison before his pardon arrived.

The foundation stone of the new public building, intended to include all the public offices, was laid in 1829 by a committee of the court of policy.

On the 21st of July, 1831, the colonies of Demerara, Essequibo, and Berbice were united into one colony, named British Guiana, and Sir Benjamin D'Urban was appointed governor and vice-admiral over the same.

Important changes have since occurred, not only in British Guiana, but in all British colonies, and the slaves received emancipation in August 1838. From this event we must commence the date of a new era, and it remains to be hoped that this so joyful change of condition in a portion of our fellow-men may be connected with blessings to them and prosperity to the colony.

II.

CAPABILITIES AND RESOURCES OF BRITISH
GUIANA.

No part of the dominions under the British crown surpasses Guiana in the commodiousness of its situation for commerce, and in maritime strength, in diversity of soil and luxuriant vegetation, as conducing to national prosperity, and in the connecting the interior with the coast regions, to make these treasures available to the fullest extent. In the foregoing remarks I have given a general outline of the productions of this rich and beautiful country, and it is now my intention to state how far its capabilities and resources might prove of advantage to colonists and the mother country, and its riches be made subservient to the wants of mankind in general.

Different
soils of the
colony.

The clayey and alluvial marshy land which is now under cultivation, extends to those sandy hills which I have already described, and has, when protected against the encroachment of the sea, and rendered mellow by labour, produced astonishing returns, which make it probable that if emigration to the colony increases, its produce will be doubled in every ten years. This extensive district is at present only partly cultivated with sugar, coffee and cotton, the three staple articles of the colony, intermixed with a few plantains. To enable my readers to judge of the richness and fertility of that soil, I may observe that

it has been recorded to have produced 6000 lbs. of sugar on an acre, or 20,000 lbs. of plantains*. To this fertility the former prosperity of the colony was to be ascribed; how much that prosperity might be increased, if the flow of emigration were to be directed to British Guiana, may be imagined chiefly, if many of its indigenous productions, which, comparatively speaking, are almost unknown, were added to the list of exports or internal consumption. It wants only the means of drawing them from their obscurity, to open new resources to the enterprising emigrant.

It is not probable that British Guiana contains gold and silver mines. I have explored its chief rivers, and have visited the mountains which traverse the heart of the colony, without finding the slightest indication of precious metals. The bare and rugged mountains of Pacaraima, and the chain which takes the direction of the meridian in the equatorial regions, are the most likely to possess in their bowels gold and silver; but the colony possesses a treasure superior to those metals, and able to enrich millions of its inhabitants, namely, its amazing fertility, and the diversity of its soil and natural productions.

The sand-hills are followed by savannahs, which generally extend to the first rocky belt, and are sometimes interspersed with woods and rivulets. They are most extensive between the rivers Demerara and Berbice; they are also frequent between the latter river and the Corentyn; but these must not be confused with those of the Rupununi, which are sterile. The former are clothed with nutritious

Savannahs
adapted for
grazing
grounds.

* I have been informed that at the estate, Mary's Hope, on the Corentyn, 8000lbs. of sugar have been produced on an acre; and with regard to plantains it is generally calculated that an acre gives seven bunches a week throughout the year. The above weight of 20,000lbs. is by no means extraordinary, since instances are known that 30,000lbs. of plantains have been produced.

and wholesome grasses, and in consequence of the number of springs and brooks, and the thickets of wood with which they are interspersed, it appears as if Nature herself had pointed them out for the pasture-ground of thousands of cattle and horses. Those between the rivers Berbice and Demerara occupy upwards of three thousand square miles, and the favourable circumstance that they are plentifully watered by tributaries of the Demerara and Berbice, and interrupted by wood-land to afford shade during the heat of the day, enhances their value as grazing-grounds.

Soil adapted to the cultivation of the vine, the olive, and coffee.

The soil between these hills and the central ridge of mountains, consists of a strong fertile loam, mixed with clay and vegetable mould, and sometimes with ferruginous matter, which gives it a reddish appearance. Indeed it is a rich primitive soil, retentive and springy. The fitness of the hilly tract, or central chain of mountains for the cultivation of coffee, and in consequence of its gravelly and clayey nature for the cultivation of the vine and olive, is perfect. The springy soil in these mountains and valleys would produce almost anything; but the sides of the mountains, I am sure, as far as my experience goes, are qualified for the production of the finest grapes, equal to those of Madeira, and without much labour or expense; these fertile regions have a great advantage over the African Isles, in not being subject to great droughts. The Catholic missionaries, who before the struggle for independence broke out in the former Spanish colonies, were settled on the banks of the rivers Caroni and Caura, tributaries to the Orinoco, are known to have cultivated the vine. The revolutionary war destroyed their missions, deprived them of their lives, or rendered them fugitives.

Soil for the

In ascending the river Berbice, and having passed the

central ridge of mountains, we found, in lat. $4^{\circ} 20'$ N., the bank of the river low, and forming large inlets. The understratum of the soil was here highly retentive, while on the surface it consisted of a clayey marl, mixed with mud and sand, the deposit of periodical floodings of the river; it is therefore particularly qualified for the cultivation of rice; and thousands of square acres, now lying in a worse than useless state, might thus become subservient to the wants of man. This morasty soil is bordered by gently undulating ground of great fecundity. The soil which I found between the two rivers, when crossing from the Berbice to the Essequibo, was very rich: we found near the banks of the Essequibo, at the abandoned Indian settlement Primoss, numerous cocoa-trees; they extended more than a mile from the river's banks, being loaded with fruits in different stages. Though some of the trees might have been planted by the Indians, it was evident that nature had assisted in propagating them: their luxuriant growth and numerous fruit proved that they thrive well in this soil.*

extensive
cultivation
of rice and
cocoa.

The vegetation of the river Rupununi is far less luxuriant. The savannah which approaches its banks, consists of arid sands upon a clay substratum, and are unproductive. Woods form only here and there a fringe along the rivers, and either disappear entirely at some distance from the banks, or become quite stunted in growth: the only fertile soil at the regions of the savannahs is along the foot of mountains, or on their ridges.

If we turn our attention to the consideration, how far the mineralogical productions of Guiana might be rendered useful to economical purposes, the clays of the alluvial flats first claim our attention, as being nearest to

Clays fit for
the manu-
facture of
earthen-
ware and
bricks.

* The cocoa-tree is found indigenous on the banks of the Rio Branco; it is therefore more than probable that those at Primoss are likewise indigenous.

Sand for the
manufac-
ture of
glass.

the cultivated part of the colony. The immense masses of fine white clay of the river Corentyn would probably prove a valuable article for the manufacture of stoneware or porcelain, while the coloured and coarser clay might be used in the manufacture of bricks, which, at present, for the construction of the necessary buildings on sugar-estates, are imported at great expense from Europe. The Indians are the only individuals who prepare a coarse earthenware by mere manual labour from the clays of the country; the white clays of the Corentyn alternate with quartz particles and layers of sand, the latter a necessary ingredient in the fabrication of porcelain. The sand which forms the first elevation, when penetrating from the sea-coast towards the interior, contains much silex, and is well adapted for the manufacture of glass. Experiments were made with it in Boston, U. S., which proved highly satisfactory, and produced a better glassware than is generally manufactured from the sands in the United States. These cliffs become of further interest, as their structure, if judged of by analogy, renders it probable that coal might be found in that situation: if such proved the fact, it would add a new and valuable resource to those which the colony already possesses.

Steam is not only employed in the manufacture of sugar, but likewise in cleaning the coffee of its husks and the cotton of its seeds. Coal is at present imported from the mother country, comparatively at an easy freight: but would this continue if Great Britain should be involved in a war with any other power? Setting aside all other advantages which it offers, a reference to this circumstance is alone sufficient to demonstrate the vital importance of the discovery of coal measures in British Guiana.

Guiana is
not likely
to possess
mineral
riches.

Though it may be possible that gold and silver mines exist in the mountain chain of Pacaraima, no native specimens have ever been brought by the Indians to the

colony, although they frequently bring the mountain crystals, red chalcedony, and coloured agates. Captain Cordiero, then commandant of Fort San Joaquim on the Brazilian frontier, told me in 1835 that the Indians from the upper river Branco had brought him at different times specimens of native silver.

The Dutch made several attempts at mining in 1721, and sent a miner by the name of Hildebrand to examine the interior; but though his search was conducted with great attention, he did not discover any indications of the precious metals. Red iron ore is sometimes met with in the granite regions; but the brown iron ore is most conspicuous in the tracts previously alluded to. I have observed, elsewhere, that the oxide of manganese, which I have seen in the possession of the Indians, consisted only of small quantities. Whether large mines of that metal are extant in Guiana it is difficult to say, and the limited use of it does not increase the importance of such a discovery. The Indians employ it to give a lustre to their native pottery.

Iron ore,
oxide of
manganese.

The granitic tract in the vicinity of the mouth of the Mazaruni, and the adjacent country, has already afforded building-materials, and has been used in the construction of wharfs and in the building of houses: if once fairly introduced, it will be of great advantage to the colony. The tracts of sandstones in the river Corentyn may prove likewise useful; some of the blocks would square ten to twelve feet.

Building-
stone.

The vegetation of the interior contains treasures which need only be developed to insure the welfare of millions, and to minister to the comforts, necessities and elegancies of mankind in general. The beautiful timber which abounds in the vast forests, and covers millions of acres, profits, under present circumstances, only a few;

Fitness of
indigenous
timber trees
for naval
architec-
ture.

and if we except the timber which is employed for colonial use, scarcely more than one hundred to one hundred and fifty pieces have been exported annually. This trifling export does not arise in consequence of the inferior quality of the timber; and, as every competent judge acknowledges, the mora and green-heart* vie or even surpass the East India teak and African oak; but the high rate of labour, and the trouble connected at present with transporting the timber from the far interior to the coast, allows only a trifling profit to the enterprising wood-cutter. There are about one thousand eight hundred to two thousand individuals employed in that trade, of which number seven-tenths are Indians, the remainder are Blacks and Coloured people, with but a few Whites.

It is well known that vessels built with indigenous wood (and there are now two in the trade of Demerara, the Mountaineer and the Christina, which are built entirely of timbers furnished from Guiana,) are of superior description with regard to strength and durability: the vessels employed immediately in the colony are in a great measure constructed of indigenous woods.

Proposal
for establishing a
naval arsenal or dock-
yard in Demerara.

If the great expense connected with supplying the British navy with timber from North America, Italy, and the Baltic be duly considered, it becomes an object of consideration whether it would not be advantageous to establish a naval arsenal in Demerara. The river is navigable for vessels of one hundred and fifty to two hundred tons for one hundred miles up; and though the bar does not allow vessels that draw more than twenty

* Several cargoes of greenheart have been sent to the Clyde, where it is preferred to any other timber; but the want of labourers in Guiana makes it impossible to meet the demand. Another cargo was lately imported at Liverpool and bought by the corporation at a shilling per foot higher than any other wood.

feet of water to go over it even at spring tides, it affords a safe and commodious harbour for thousands of that description, where they may anchor in five to ten fathoms water; indeed, the river from Fort Point to Hababu Creek may be said to form one vast harbour. Here the ships lie undisturbed by gales and hurricanes, which are unknown phænomena; thus its fitness for a naval arsenal becomes evident.

I have already alluded to the valuable mora, (*Mora excelsa*, Benth.), one of the trees most abundant in the forest. The wood is very durable in any situation in and out of the water, remarkably strong, tough, and not liable to split. Its crooked timbers would be of the greatest utility for knees; and the finest stems for vessels of any size might be procured, as well as the choice and valuable pieces in request for keels, kelsons, stern-posts, floors, beams, &c. The close nature of its wood, which never splits, recommends it for bulwarks of men-of-war, bomb-vessels and gun-boats. Not less recommendable are the planks of green-heart: siruabally for planking; the purple-heart for bulwarks, gun-carriages, mortar-beds, &c.; and the red cedar, which reaches a height of upwards of eighty feet, for masts and spars of vessels. The colony is also rich in woods which are adapted for cabinet-work, turnery, and ornamental purposes, many of which are at present entirely unknown to the cabinet-makers of Europe, and which only in a few houses of the opulent colonists have been used for furnishing their rooms. The elegant appearance of these woods in a great measure hides the want of taste in the execution of the furniture. Pre-eminent among these ornamental woods stands the beautiful letterwood, which in elegance of appearance, and the readiness with which it takes polish, recommends it above all others to notice.

The Mora tree, Green-heart, Siruabally, &c. peculiarly adapted for naval architecture, cabinet-work, &c.

If it should please Her Majesty's Government to encourage the timber-trade, it would not only open a new resource to the Government, but afford double advantage to the colony. In consequence of the increased demand, the lands would be cleared, and by this a great step towards civilization and an improvement in the health of the colony would be gained.

Among the British possessions in South America, Honduras takes a great share in the export of timbers; and though British Guiana neither possesses the logwood nor the mahogany, it possesses other timber-trees and dyes equally useful; while Guiana has the advantage, that it may be approached with less danger to the navigator than Honduras, and is never subjected to hurricanes.

Medicinal
plants.

In the foregoing remarks I have endeavoured to make the reader acquainted with some of the trees which, with reference to their timber, are of importance to commerce. Of equal, if not greater value, are the trees and plants from which medicinal substances may be obtained, and which, at present unheeded and unsought for by the colonists, do not profit mankind, and may be considered buried riches. It would be in vain to attempt a description of all the medicinal plants with which the dense forest of the interior abounds. I shall therefore satisfy myself with enumerating the most remarkable.

Laurel oil.

Trees which belong to the Laurel tribe are very numerous in Guiana, and are not only important for their aromatic and stomachic qualities, but likewise for the volatile oil which is obtained merely by making incisions in the bark; this oil is used in rheumatic complaints, or in general externally as a discutient, and internally as a diuretic and diaphoretic. It commands in the colony a price of ten guilders (14s.) per quart; several quarts may be obtained by a single incision.

The bark of *Laurus Cinnamomoides* is warm and aromatic. The Mabaima or Amabaima of the natives, or *Casca preciosa* of the Brazilians, is a sweet, aromatic bark which comes from a tree that belongs likewise to the Laurel family. I have no doubt that the tree which furnishes the Sassafras nuts of the London shops (*Laurus Pucheri*) will be found indigenous in Guiana. Wild cinnamon.

The forests of Guiana produce plants which possess powerful febrifugal properties. On the banks which border the river Berbice in the fourth and fifth parallel, the *Quassia amara*, or bitter ash, and further south, the *Portlandia hexandra*, are to be obtained in abundance. Several of the *Anonaceæ*, as *Uvaria febrifuga* (*Frutta de Burro* of the Colombians), are used as a febrifuge. The Indians of the Rupununi set a great value on the bark of a tree which they call Allissau; in the absence of its flowers I considered it to belong to the Bucku tribe (*Diosmæ*). The *Simaruba*, *Tachia guianensis*, *Malpighia febrifuga*, and numerous others, would prove useful for their febrifugal properties. Trees and plants which possess febrifugal properties.

The violet tribe comprises a plant which furnishes the Ipecacuanha, namely *Ionidium parviflorum*. The root of the *Cephaelis Ipecacuanha*, found in the damp and shaded forests of the interior, furnishes the best Ipecacuanha. A small creeping plant, a species of *Vandellia*, is used as an emetic by the Indians with great success. Ipecacuanha.

The diuretic and demulcent powers of the Sarsaparilla are well known; and the Sarsa de Rio Negro is most esteemed for that purpose. Guiana possesses several kinds, and the *Duroquaro*, one of the indigenous species, is used with great effect by the Indians. If the *Smilax siphilitica*, which is considered to furnish the best sarsaparilla, should not be found, it might be cultivated with Sarsaparilla.

success in British Guiana. The root of the *Phiolacca decandra*, *Helicteris Sacarolha*, *Waltheria Douradinha*, are used in siphilitic diseases.

Caout-
chouc.

That valuable substance Caoutchouc is yielded by divers trees and plants, viz. a species of fig-tree, several of the family of *Euphorbiaceæ*, and the hya-hya or milk-tree, which affords a milky secretion, possessing a small quantity of caoutchouc, and has been used as a substitute for milk.

Balsam of
copaiva,
umiri, ele-
mi, acou-
chi, gum
anime,
gum lac.

Many trees of the forests of Guiana are famed for their fragrant resinous juice and healing qualities. The balsam copaiva is yielded by the genus *Copaifera*, of which there are divers species in Guiana. I have met frequently in the Canucu mountains the species which is said to yield that substance in the greatest abundance. The *Icica Carana* produces a substance like gum elemi, the *Icica acouchini* the balsam of acouchi, the *Humirium floribundum* the balsam of umiri, the *Amyris ambrosiaca*, an immense tree, the fragrant resin of conima. The latter tree, called *Haiowa* or *Sepou* by the Indians, is most abundant. The Tonko bean is very fragrant, and possesses a volatile oil, which contains a peculiar principle called coumarin. Several species of *Anoniaceæ* yield likewise a fragrant gum, highly prized by the Indians, and from their flowers essential oils might be extracted. The locust-tree, or *Hymenæa*, furnishes the gum anime. It is found in abundance, and might be used as gum lac. Several species of *Garcinia* as well as *Clusia* possess gamboge.

Vegetable
tallow.

The Dali, a species of *Myristica*, a large and majestic tree, is very frequent along the banks of rivers; its seeds when immersed in boiling water furnish a vegetable tallow, which has been used with effect for the preparation of candles by several colonists.

Most prominent among the vegetable oils is that pressed out of the nut of the crab-wood tree (*Carapa Guianensis*); it is used in the colony for burning, but at present small quantities are only manufactured by Indians, who anoint their hair with it, and the strength and fine gloss which distinguish it is ascribed to the use of that oil. They press likewise a sweet oil from the fruits of certain palm trees, chiefly from the *Acuyuru* (*Astrocaryon aculeatum*), and Cucurit palm (*Muriciana regia*). Vegetable oils.

The number of woods which furnish valuable dyes is considerable. I allude to the Brazil wood, the fustic-tree, the black dye of the *Lana* (*Genipa americana*) and *Serada*, the red dye of the *Maparakuni erythroxyllum*, different *Malpighiæ*, and the useful dye *Arnatto* or *Roucou*, which is indigenous, and thrives without care*. The *Bignonia chica* affords a dye similar to the *Arnatto*. The plant possesses it in such abundance, that it exudes like resin when the wood is wounded; it dyes a bright orange. To the same family belongs the *Manariballi* (*Jacaranda ovali-* and *acuti-folia*), which affords an excellent remedy against that dreadful disease, the yaws; a decoction of its leaves is given to the patient inwardly, and he is likewise directed to wash his body in it. Dyes.

Guiana possesses several trees, the bark of which affords the principle of tanning. The bark of the *Avicennia tomentosa*, and a species of *Malpighia*, which is abundant on the savannahs in the interior, is much used by the Bra- Tanners' bark.

* It will scarcely be believed, that the *Arnatto*, which is so extensively used for colouring, is at present imported from France, *viâ* New York, to avoid, like the slave-grown coffees, the foreign duty. It is an indigenous plant in Guiana; the banks of the Upper Corentyn are covered with it, but there are not sufficient people to render the natural productions of the colony of use.

zilians for that purpose. The heart of the mora tree is considered as valuable for tanning as oak.

Fruits.

There are many fruits grateful to the palate, and wholesome withal, which are the productions of the forests. Among a great number, I mention only the Pine-apple, the Guava, the Marmalade fruit, the delicious fruits of the Anona tribe, the Sapodilla, several species of Passiflora, the Brazil and Suwarrow or Souari nuts; the latter, which are the fruits of *Cariocar tomentosum*, and various others of the same genus, may be considered as some of the most delicious of the nut kind, and would furnish a sweet and bland oil.

Ropes, cordage, &c.

The leaves of some of the *Bromeliæ* which grow on the arid savannahs, furnish a fibre, of which the natives make thread and ropes: it is uncommonly strong and durable. The fibres of the *Agave vivipara* have been used for the same purpose, and those of the young leaves of the Ita palm (*Mauritia flexuosa*) are woven into hammocks, ropes, and baskets, by the Warrau and Ara-waak Indians: these ropes do not, as at present manufactured, sustain long exposure or damp situations. The cultivation of the Piazaba palm (*Attalea funifera*) might prove of great importance. This palm is indigenous on the Rio Negro and the Cassiquiare; and of its petioles a cordage is manufactured, which is extremely light, and floats upon the water, and is more durable in the navigation of rivers than ropes of hemp. It is extensively used in the Brazilian navy, and large quantities are exported to Para, and to many of the West India islands.

Resources of the Colony, its staple Productions ; and Proposals for making the large tracts of fertile land available which lie perfectly waste in the interior.

The productiveness of the soil is so great, that the Indian bestows but little labour on the cultivation of his provision-field. He plants cassada, maize, plantains, sweet potatoes, yams, &c., and leaves it to nature to ripen them. The soil, which is generally selected on the foot or side of mountains, and which it costs him comparatively little trouble to put in order, yields abundant returns for the remainder of the year. I sent samples of cassada root, yams, and Indian corn, cultivated at the foot of the Pacaraima chain, in 1836, to Georgetown ; and these productions were acknowledged to surpass in size and quality those produced at the coast regions.

Indian provision-grounds : their productiveness a proof of the fertility of the soil.

The bunches of plantains which I saw at the Canucu mountains, at a height of 3000 feet above the level of the sea, might have vied with the largest from the fertile island Puerto Rico. It is generally believed on the coast, that this plant succeeds only in a 'pegass soil': the plantain is, however, with the Macusis and Wapisianas, one of the necessities of life, and thrives equally well, if not better, on the clayey and gravelly soil of these regions : this refers likewise to the banana or bacouva.

The staples of the colony are at present sugar, coffee, and cotton. It would be useless to dwell upon the importance of the cultivation of the first article, which has been the foundation of the prosperity of the colony. Although coffee and cotton were formerly almost solely cultivated, these productions are now in a great measure neglected, and the preference is given to the cultivation of the sugar-cane. The coast-regions only have hitherto

Staple commodities : sugar, coffee and cotton.

Large size
of the
sugar-cane
produced in
the interior.

been cultivated for the production of sugar ; but that many tracts in the interior are equally qualified for it, is proved by the immense size of the canes I have met with in different parts of the interior, some of which measured six to seven inches in circumference, though they were produced on a mountain between 2300 and 2500 feet above the plain, without any weeding or attention. I saw a quantity of sugar-cane at an abandoned Caribbee settlement, called Mourre Mourre Patee, on the river Essequibo, which, left to nature, produced as fine canes as ever I met with on the coast.

Coffee: the
central
ridge of the
mountains
best qualified
for the
cultivation
of the
coffee.

Coffee was for a length of time almost the only staple of Berbice and Demerara ; it has since been much neglected, the cultivation of sugar being substituted for it. Its use throughout the civilized world has so much increased, that its importation has been trebled the last ten years, and is now estimated at 20,000 tons. The consumption in the United Kingdom amounted in 1831 to 9865 tons, or upwards of twenty-two millions of pounds. Its cultivation must therefore be an object of great interest to the colony. At present it is restricted to the coast regions, where the soil is very rich, and the trees are often luxuriant without ensuring fruit of a good quality : the most favourable situation is undoubtedly the side of a hill, where the soil is springy. There is, perhaps, in British Guiana, no tract better qualified for the cultivation of that bean, than the central ridge of mountains. If an increased population should permit the interior to be cultivated, this tract would produce coffee equal in quality to that from Jamaica and Martinique, which is considered the best in the West Indies, and would soon surpass Jamaica in quantity of export, though it is estimated at 20,000,000 pounds. The outlay of capital for the establishment of a coffee plantation being small, this

circumstance would offer greater inducements to settlers; and if in the selection of the soil and situation some care were bestowed, I see no reason why it should not equal the Mocha bean.

The indigenous cottons are very numerous; and the Indian has generally a few shrubs of that useful plant around his hut: however, I have seen the industrious Macusi cultivating it more extensively. The hammocks which the Indians manufacture of it, are valued for their strength and durability, and are considered superior to the European article. Like the staples before enumerated, cotton has been only cultivated by the colonists at the coast regions; but its cultivation has in a great measure been abandoned, because our cottons, raised by free labour and in a British colony, were undersold by those produced by slaves in the United States.

Cotton: the excellent quality of the indigenous cottons in the interior.

If, with regard to the abundance and cheapness of labour, British Guiana were put on the same footing as the slave states in America, an inexhaustible supply of cotton of every description might be produced. There is no doubt, that all kinds of cotton, from the best long staple down to the finest short staple, might be cultivated in the colony, as the kind which does not thrive in one soil or climate might be produced in another. An extent of sea-coast of two hundred and eighty miles from the river Corentyn to the mouth of the Orinoko, would produce cotton vieing with the best in the world.

I doubt the opinion that the finest cotton will not grow at a greater distance than twenty miles from the sea. I have sent samples of the wild cotton from the interior to the colony, which were admired by competent judges for their fine long staple and silky appearance. No care whatever had been bestowed upon the cultivation of these

plants, which grew at a distance of three or four hundred miles from the coast. Although the growth of the plant was not luxuriant, it was covered abundantly with cotton of most excellent quality ; indeed it would be highly advisable to the cotton-growers at the coast to exchange the seeds.

Vegetable Productions, which, although they do not as yet form articles of export or internal consumption, might be raised with advantage by emigrants who are not in possession of large capital.

Sugar, coffee, and cotton are the commodities which have been hitherto almost the only objects of cultivation in Guiana ; but it must not thence be inferred that other articles are properly excluded. The fertility of the soil promises a safe return for the investment of capital in the cultivation of other crops, which would open new resources to the colony. If the stream of emigration, which has been directed to other and more distant colonies, should flow towards British Guiana, and the great disparity between the land to be cultivated and the want of labourers to cultivate it be removed, would not the enterprising farmer, who knew that his capital was not sufficient to embark in the expensive cultivation of the sugar-cane, select some other product, from which he might expect to receive an adequate return for the labour required and the capital employed ? The altered circumstances of the labouring population will produce a new æra in colonial history ; and while formerly the cultivation of sugar engrossed the mind of the speculator, on which he hazarded frequently not only his own means, but likewise the property of others, the altered state of things will produce a vast change in agriculture ; a new

class of cultivators will arise, who perhaps may be compared to the farmers of the mother country. The vast establishments now existing will be broken up into separate concerns of more manageable dimensions : the different occupations of agriculturist, miller, and distiller will no longer be combined, but, as in the mother country, each individual will follow that branch of industry, to which the nature of his property (if he possess any) or of his abilities (if he does not) may direct him. The lands are adapted for numerous other branches of agriculture, and among them the less wealthy cultivator will make his choice. New excitement to commercial enterprise will thus be raised, and additional prosperity may naturally be expected to follow. I have already pointed out, that among the vegetable productions of Guiana, a great many are objects of desire in Europe : their number might be considerably increased ; and I venture to propose such as I know might be successfully cultivated, from my researches in the interior of British Guiana.

The cultivation of rice would prove a very productive branch of husbandry ; and as it has formed of late years a principal article of food for the labouring population, it is of great importance that it should be cultivated in sufficient quantities, if not for export, by all means for the internal demand of the colony, which does not employ the resources which she possesses to produce food for her inhabitants. The all-engrossing object, the cultivation of sugar, has for several years usurped thousands of acres which were formerly dedicated to the production of plantains, once the chief food of the labourer. The land on the coast is no doubt well adapted for the production of rice ; but we will not encroach upon the soil at present planted with sugar-cane. There is a tract be-

Rice.

tween the rivers Berbice and Essequibo, in $4^{\circ} 20'$ N. latitude, which nature itself appears to have designed for the growth of that article. It possesses the means of constant irrigation, and at the first subsiding of the periodical inundations, when the soil is left like soft mud, the seeds might be put in. The banks of the river Berbice are here so low, that irrigation might be easily procured even in times of great drought. I am fully persuaded in my mind that two crops of rice might be procured annually; indeed it is on record, that a Mr. Bielstein, who cultivated this article on a small scale at the lower Essequibo, raised repeatedly three crops in a year. The cultivation of rice would thus cover thousands of acres which are at present a perfect wilderness; and food for the lower classes would be provided, which at present is mostly imported from a foreign country, which, perhaps, at an earlier or later date may be at issue with Great Britain, beside that the rice procured from the United States is raised by slave labour.

Indian
corn, or
maize.

Of the Cereal grains, the Indian corn deserves more attention than it has hitherto received. The maize is indigenous; and that the coast does by no means afford the best soil for its cultivation, is proved by the superiority of the maize raised by the Indians in the interior. It is cultivated as the principal crop in Egypt, and to a large extent in the United States, chiefly in the southern slave states, whence it is imported into British Guiana.

Millet.

Indian millet, which under the name of Guinea corn, is so extensively cultivated in the West Indies, might be raised to a large extent. I think it constitutes in the Bahamas the principal article for the nourishment of the labouring classes. But of the greatest import will prove the introduction of the Victoria wheat into our West In-

Victoria
wheat.

dian and South American colonies; and there is every probability that its cultivation will be attended with success. It is said to grow equally well in arid plains as in humid mountains, and it promises three crops annually. This grain is likely to afford therefore new resources of those fertile regions, and will tend to make the colony less dependent upon foreign imports: the sudden and often enormous rise of that necessary article flour, in British Guiana, when the import is not adequate to the consumption, proves on what precarious footing the maintenance of the inhabitants is placed. The Victoria wheat has succeeded in Barbadoes and Jamaica, islands which cannot vie in fertility and diversity of soil with Guiana. Indeed we have reason to hope, that with sufficient labour, a quantity equal to that raised about Calcutta might be produced in Guiana. If the dearth and famine be considered, which at present is raging in New South Wales and Van Diemen's Land, it becomes almost the sacred duty of the legislative body to encourage by all means in their power the introduction and extensive cultivation of this Cereal grain, to prevent a similar calamity, which, thanks to the Almighty and the fertility of the soil, has been hitherto unknown in British Guiana.

The only English colonies where that nutritious and wholesome substance, cocoa, is cultivated, are Trinidad, Grenada, and St. Vincent: in Jamaica and Guiana it has given place to the production of sugar; and though it forms such an important article in the import of the United Kingdom, the quantity introduced from British plantations is but trifling. The cocoa tree delights in a rich and springy soil, or in which irrigation may be admitted. While we crossed from the river Berbice, to the Essequibo, we met a number of choco-

Cocoa.

late-nut trees, near the abandoned Caribi settlement of Primoss. It is not to be doubted that the trees were originally planted by the Indians; but from their number and the distance from the river, I judged they were propagated by nature: though they were overshadowed by larger trees, and had for many years been neglected, they had reached nevertheless a height of from thirty to forty feet, and the luxuriant growth and the abundance of fruit proved that the plant was satisfied with the soil. The forests at the banks of the Rio Branco, in the vicinity of Santa Maria and Carmo, abound in wild cocoa trees, the fruits of which are collected by the scanty population of that district for their own use. The cultivation of cocoa will be most suitable to the less wealthy individual, as it demands so little labour and outlay. M. de Humboldt observes, in alluding to Spanish America, that cocoa plantations are occupied by persons of humble condition, who prepare for themselves and their children a slow but certain fortune; a single labourer is sufficient to aid them in their plantations, and thirty thousand trees, once established, assure competence for a generation and a half.

Vanilla.

Different species of vanilla are natives of Guiana; and it is found in large quantities along the banks of its rivers, and in the wooded districts which intersperse the savannahs. It is well known that it is added to chocolate to give it an aromatic flavour, but it is likewise used for several other purposes in confectionary; and the oily and balsamic substance which the minute seeds possess may be found to have medicinal qualities. Its cultivation can be connected with no difficulties; it needs only to plant the slips among trees, and to keep them clear of weeds. It would prove therefore a great addition to a cocoa plan-

tation. In 1825 the price was in Germany sixty rix-dollars (equal to nine pounds) per pound, and twenty-five to thirty dollars are paid for it in Martinique.

Tobacco is considered indigenous in South America, Tobacco. whence it is said to have found its way to Virginia, from which place it was introduced by Sir Walter Raleigh. Though it cannot be considered a necessary of life, its use is so extensive, that it forms a considerable item in the revenue of nations, and its successful cultivation is therefore of importance. With the exception of the Macuba tobacco, which is cultivated in Martinique in a peculiar soil, the tobacco of Cuba is considered the finest in the world. The sample of tobacco which I sent from the interior of British Guiana to the commercial rooms in Georgetown, was pronounced to be equal in quality to the Havannah, and even to surpass it, in consequence of its thinner ribs; indeed it was observed by an able judge, that tobacco of equal quality had never been imported in Guiana.

At every Indian settlement some tobacco-plants are found to be cultivated at their provision-fields; but when once planted, no further attention is paid to it, and the leaf is cured in the most simple manner, by being hung up in the Indian's hut; it possesses nevertheless, what a connoisseur would call high flavour and aromatic qualities: how much more might its excellence be increased by proper attention being paid to its cultivation!

The cinnamon tree, though not indigenous, has been successfully cultivated in the Isle of Bourbon and the Mauritius, and it is now naturalized in those isles. It was introduced into Guiana in 1772, and there are a few planters who have several specimens of that aromatic tree in their gardens: however, it has never become an object of export. The healthy state of the trees and their luxuriant

Cinnamon,
nutmegs,
and other
spices.

growth would ensure its becoming an article of commerce. The surface of the land where it is cultivated in Ceylon, is a pure white sand, under which is a deep stratum of rich mould. The extensive tracts south of the sandy ridges present the same soil in British Guiana. We are told that from twenty-five to twenty-six thousand people are employed in Ceylon in the cultivation of the cinnamon-tree, and the preparation of its bark for commerce. I have already observed that a wild kind of cinnamon is indigenous in Guiana, the bark of which is used as a simple by the natives.

Of equal interest would prove the cultivation of the nutmeg. Trials have been made in Trinidad; and samples having been submitted to the society for the encouragement of arts, they pronounced them equal to the eastern produce, and awarded their gold medal to the successful cultivator. The principal supply of nutmegs is at present imported from the East; but to prove the importance of the cultivation of the nutmeg-tree, I observe that the average home consumption is estimated at ten thousand pounds every month, or one hundred and twenty thousand pounds per annum. Guiana possesses an indigenous species of the nutmeg-tree; however, its fruits are small and very pungent, and cannot be used as a spice.

Pepper and
pimento.

Pepper has been cultivated with great success in Cayenne, and it forms already an article of export. The rich soil in mountains, valleys, or along the banks of rivers which are not subjected to inundations, is considered to be the most eligible: the plant is trailed against other trees, and might be raised in company with nutmeg-and cinnamon-trees.

The pepper-plant bears abundantly, and in Sumatra a full-grown vine has been known to produce six to seven

pounds; the average produce of one thousand vines is however stated to produce only about four hundred and fifty pounds. The pimento, or allspice, is a native of South America, and would have become undoubtedly an article of high interest if the spices of the eastern hemisphere had not been previously introduced. In Jamaica it thrives where nothing else would grow: if Guiana should enter therefore into the cultivation of spice, a favourite situation for that tree might be easily found on the banks of the Rupununi.

The ginger cultivated in the West Indies is considered superior to that of the East, but it is of less importance to commerce. Ginger.

The cardamoms are a production of a plant of the same tribe as the ginger, and might be cultivated with that aromatic root as well as the turmeric or curcuma; the latter of which is not only esteemed for aromatic and stimulating properties, but likewise as a dye. Cardamoms and turmeric.

The indigo imported from the western hemisphere was for some time considered superior in quality to that of the East. Its cultivation however has been neglected, and the Bengal indigo is preferred at present to any imported from South America, where it is only cultivated by the Brazilians and Colombians. If proper attention were paid to the cultivation of the plant, and to the preparation of the dye, it is very likely part of that important trade would be brought back. It thrives best in a moist climate; and the interior of Guiana, chiefly newly cleared land, would be well adapted for it. Indigo.

Numerous other articles might be recommended to be cultivated, which at present are entirely overlooked; among these is the plant that furnishes the opium, which, for English consumption, is imported from Turkey; senna, and numerous species of cassia to which genus that drug belongs,

are indigenous to Guiana; sarsaparilla, cinchona, or Peruvian bark, &c.; for all of which the colony would afford a proper soil for cultivation. To these medicinal plants we may add the grape-vine, figs, olives (which have been already cultivated with success by the missionaries at the river Carony, before the internal struggles of Colombia commenced): the cochineal insect and silk-worm would offer another addition. Our relations with China are at present on a critical footing. I need not dwell on the vast importance of the tea-trade, which is so closely connected with the decision of the pending misunderstanding. The cultivation of the tea-plant has been tried at Trinidad, and would have been successful, if the all-engrossing cultivation of sugar had not prevented it. Guiana possesses the soil of Trinidad, and tea might be raised there.

Fisheries.

The rivers of Guiana are at certain seasons stocked with fish; and during that period parties of men proceed from the lower Essequibo to the falls, in order to procure the fish called pacou, which are caught in large numbers, slightly salted, and dried on the rocks.

But of greater importance than the pacou, is the existence of one of the largest freshwater fishes in the Rupununi, namely the Arapaima, or Pirarucu, which attains occasionally a length of twelve feet, and weighs upwards of three hundred pounds. It is used fresh and salted, and affords the means of subsistence to a large number of inhabitants on the river Negro and the Amazon. Were the fishing-ground on the Rupununi attended to during the dry season, an abundance of fish might be obtained for internal consumption and occasional traffic with the coast. Of other delicious fish, I mention the Laulau, which reaches nearly the size of the Arapaima, the Gillbagre, Lucanani, Haimara, Cartabac, Paiara, Bashaw, and many others,

which in delicacy vie with our most esteemed European fish. Fishing is entirely neglected, and the immense numbers and great variety of the finny tribe profit but few. When the rivers begin to rise, the fish retire toward the heads of brooks, and a great many vegetable substances being swept from the land by the torrents of rain, they find sufficient nourishment, and do not bite. Game, chiefly deer, is sometimes abundant at the upper savannahs. While travelling over those which skirt the Pacaraima mountains, we procured sometimes, in the course of a few hours, from four to five deer. The maipuri, or tapir, frequents the forests along marshes and rivers: its flesh resembles beef, and is much liked by the Indians. Two species of wild hog, the acouri or agouti, the delicious cuba or paca, the waterhaas or capybara, and many others, administer to the wants of man, or form delicacies.

Numerous is the feathered game, resembling in appearance, or by their luxuriant eating, our European game-birds. Among the most famed I mention the powis, or wild turkey, the hannaqua or Guiana pheasant, the dau-raqua or partridge, the anamo, the curri-curri or curlew, the Orinoco goose or wanama, and a great variety of wild ducks, among which is an indigenous Muscovi duck. It is however my opinion, that the animal creation of Guiana cannot offer any articles of commerce, if we except the few deer-skins, and those of the water dog or Guiana otter, which have been declared by hatters to be equal to the best beaver-skins. It is, however, far different with the herds of wild cattle and horses which graze on the vast savannahs of the Pacaraima mountains, and which, with very little exception, have hitherto afforded food only to beasts of prey. The superstition of the Indians does not allow them to eat the meat of cattle, and

Feathered
game.

Wild cat-
tle.

the few Brazilians who live in the neighbourhood of the Fortaleza of São Joaquim need but few for their subsistence ; they are killed more for the value of their hides. These cattle descend from some Brazilian government farms, which were established towards the end of the last century by brigadier Manoel de Gama : three of these farms are in the vicinity of fort São Joaquim, at the confluence of the Tacutu with the Rio Branco, and two more further east. During the struggle of the revolution they were neglected, and the two at some distance from the fort were entirely abandoned, and the cattle dispersed over the savannahs, where they have multiplied. When I crossed the savannahs of the river Mahu, I met frequently herds of thirty to fifty ; and Captain Cordiero, then commandant of fort São Joaquim, assured me that many thousands were grazing on the banks of the Tacutu and Rio Branco. The number which are still at the imperial farms in the vicinity of the Fortaleza he told me amounted to about three thousand, which are regularly tended by herdsmen, and their number is kept up. The meat of those which are slaughtered is salted and dried, and sent with the hides every three or four months to Barra (or Manaos).

It has been ascertained to the full satisfaction of several eminent physicians, that the sickness and mortality of the troops which were sent from Europe to the colony was among other causes to be ascribed to the improper food, if considered with regard to the moist atmosphere, especially in Demerara ; and that it became a paramount necessity to have the troops furnished with a greater portion of fresh meat than that allowed by the army regulations. These supplies of fresh meat are at present connected with heavy expenses to the treasury, the cattle being imported from the islands, chiefly from Puerto Rico, one of the Spanish colonies.

I alluded in former remarks to the fitness of the extensive savannahs between the rivers Berbice and Demerara, for grazing-grounds, and that they are much superior for that purpose to those of the Rupununi. The climate in these regions is uncommonly healthy, and the country so well watered by springs and rivulets, that the great want of water which exists in the savannahs of the Rupununi, and which is such an obstacle that I fear they will never be inhabited by Europeans or their offspring, is here entirely set aside. If, therefore, enterprising colonists should cultivate pasturing-grounds, and stock them with cattle from the savannahs of the Rio Branco, fresh beef might be had at an equally cheap rate as in the United States: it will then be in the power of the peasantry of British Guiana to provide themselves with fresh meat at a price which bears a relative value to their wages.

Fitness of savannahs between the rivers Berbice and Demerara for grazing-grounds.

The difficulties which might be connected with leading the cattle at the Rio Branco, to those savannahs between the rivers Demerara and Berbice, are comparatively few. They might be led across the savannahs to the foot of the mount Makarapan, where they might be embarked in bateaux or large canoes, which had been constructed for that purpose in the vicinity of Makarapan. The forests in these regions abound in crabwood; and if for the transporting of the cattle the period is chosen when the river is full, the cataracts are of little consequence: the large cataracts of the Orinoco are at that period passed in vessels of forty tons. The administrator of the Brazilian cattle-farms at the Rio Branco informed me, while staying at fort São Joaquim, that the number of cattle amounted to about five thousand, and that the price was six dollars per head. The pasture of the savannahs of the river Berbice being similar, and the localities and

Proposed plan of leading the cattle at the savannahs at the Rio Branco to the coast.

supply of water superior, to the savannahs of the Rio Branco, the success of farms which were stocked with that cattle would be ensured.

I cannot conclude my observations on the capabilities of British Guiana without referring once more to the importance of its timber trade, and the source of wealth which might be derived if there were a sufficient number of woodcutters. At present, if we make a few exceptions, it is only carried on by individuals who enter upon it with but little capital and slender means ; and yet there are instances where the industrious and sober have reaped riches.

The fitness of the timbers for naval architecture is unparalleled, and in some instances is said to surpass the teak. The greenheart, the mora, and souari or sewarri, of all other woods are most unquestionably the best adapted for ship-building. Within the last ten or twelve years a considerable quantity of brown greenheart has been sent to Liverpool and Greenock ; and I have been told that builders and others interested in shipping are now of opinion, after about ten years' trial of the wood, that in strength and durability it is superior to any oak, and it actually commands a higher price.

Had these woods been introduced and extensively employed in the royal dock-yards fifteen or twenty years ago, it is the opinion of competent judges that we should not now hear much of dry rot and Kyan's patent ; and not to mention the rapid decay of vessels built of English and African oak, and the consequent frequent repairs, with what saving to Government would it not have been connected ! If, therefore, the attention of the navy-board could be drawn to the important fact that British Guiana can furnish the finest and most durable wood in the world, in sufficient quantities to supply all the

ship-building establishments in Great Britain, a double benefit would arise from it, namely, the saving to Government and the increased demand for the natural production of the colony. The first experiment might be made to establish a dock-yard for the repair of such of Her Majesty's cruisers on the West India station as draw not more than eighteen or nineteen feet water. The outlay of such an establishment would be trifling, if the importance of ultimate success be considered.

The woods which are qualified for ornamental purposes vie in elegance, if polished, with any in the world. The want of labourers is the great cause that these treasures lie comparatively hidden, and have scarcely excited attention. The demand in the colony has been so great for native woods, that those who are at present employed in that trade are not able to meet it.

III.

THE PRESENT CONDITION AND FUTURE
PROSPECTS OF THE COLONY.

THE British colonies in the West Indies have been cultivated until recently by slave-labour; but England has since proclaimed the general emancipation of her former slaves throughout her colonial empire, and has set a bright example to Europe of erasing from the pages of her history one of the foulest blots.

The picture of the state of the colonies after a period of about two years since the eventful first of August 1838, cannot be contemplated with gratification by the planter, or by those who are interested in the agricultural prospects of the colony: there exists, no doubt, a rapid decrease, which does not refer to any individual colony, but is shared by all; and the most incontrovertible proofs lie in the contrast which the import of the single article of sugar into the United Kingdom, from the British West India and South American colonies, offers, if compared with former periods. The average annual import for the six years previous to 1836, amounted to 255,000 hogsheads; while in 1839 it has dwindled down to 179,800 hogsheads, showing a deficiency of 75,200 hogsheads, as compared with the average import of the former years, and of 42,300 hogsheads as compared with the import in 1838. It was not to be expected that the

free labourer would devote himself with that ardour to the cultivation of products to which he was compelled while in slavery: still the deficiency is so great, that it must prove startling to even the warmest friends of that measure, which to execute, the nation gave twenty millions of pounds sterling.

The negroes evince the greatest indisposition to field labour: they have chosen to cultivate small patches of land, or if by industrious habits they have procured a small sum of money, they have become shopkeepers, petty traders, and hucksters. Now it must be generally acknowledged that the prosperity of the West India colonies was solely to be ascribed to the cultivation of those products for which the soil and climate adapted them: if these resources fall off, it must exercise the most distressing influence upon the population in general. No country can exist without a labouring class; and a nation of shopkeepers, petty traders, and hucksters, to the exclusion of the tiller of the soil, would be a phænomenon in political economy. If the prosperity of the colonies continue to decline with the rapidity of the last two years, that happiness, and advancement in religious instruction and civilization of the negroes, are not likely to follow, which the British nation at large expected when the great boon was tendered to the African. It cannot be denied that the colonists have done much in offering religion and education to the working classes; but will they continue to tax themselves, whilst they are deprived of the very means by which that taxation is supported? Or is the philanthropist sure that the seeds which religious teachers have sown in the breast of the African, have sufficiently prospered to expect fruit? or is it more likely that he will relapse to indifference towards religion, and adopt his former savage customs? His advancement in religion is

the very basis on which the plans for his happiness have been founded ; if that fail, the dangers of an unfettered condition of society will be united with indolence, the originator and companion of crime, and an unavoidable destruction of the colonies must succeed. Whether this would prove a matter of indifference to the people of Great Britain, is a question of sufficient importance to arrest our consideration.

The capital which is expended upon the culture of the British West India colonies belongs either directly to Great Britain or to the colonists, who are connected by origin, language, manners, and institutions, with England. The British possessions in the Western hemisphere are agricultural countries, in which manufactures do not thrive. Accustomed to the same habits and wants, and imbued with similar tastes as the English, they resorted to the mother country for the supply of manufactured goods, and such articles of luxury as they required and were within the reach of their circumstances ; and while the trade of Great Britain with Europe had declined, from 1802 to 1836, from sixty-five to forty-eight per cent., the trade with the British colonies in America increased from eighteen to twenty-six per cent. The relative value of the export of goods of British manufacture to the colonial possessions is learned from Porter's parliamentary tables, according to which the exports to the British West Indies, with about nine hundred thousand inhabitants, surpassed in 1836 those to the British North American colonies, with a population of fifteen hundred thousand, by 1,050,000*l*. The respective amounts of exports to the British West Indies in 1836 were 3,786,453*l*., to the British North American colonies, 2,732,291*l*. It appears by these tables, that Russia, with a population of sixty millions, receives British manufactures to the extent of only 5*d*.

per head ; Prussia, with fourteen millions, $3\frac{1}{2}d.$ per head ; Portugal, with three millions, and Spain, with fourteen millions, $8d.$ per head ; Denmark, with two millions, and France, with thirty-two millions, $11d.$ per head ; the United States of America, with fourteen millions, $17s.$ per head ; the British North American colonies, with a population of a million and a half, $1l. 11s. 6d.$ per head ; while the British West India colonies, with nine hundred thousand inhabitants, receive British manufactures to the extent of $3l. 12s. 6d.$ per head.

Continental Europe, actuated by the wish to protect her rival commercial establishments, throws every impediment in the way of introducing British manufactures ; and in spite of all the reciprocity treaties which have been concluded with the continent, the exports to the states of Northern Europe, taken as a whole, is at present less than it was twenty-five years ago, while the reciprocity system has had the direct effect of destroying the British carrying-trade ; and it is supposed that if this system is continued for ten or fifteen years longer, the British traffic with Europe will be carried on in foreign vessels. A similar danger threatens with regard to the United States, where in 1836 trade was carried on in two hundred and twenty-six British ships, or eighty-nine thousand three hundred tons, and in five hundred and twenty-four American ships, or two hundred and twenty-six thousand four hundred tons*. It is different with the British American and West Indian colonies, where not only the exports but likewise the tonnage returns have been rapidly increasing. The commercial crisis in 1811, when the export trade of England was only re-

* The number of vessels which arrived that year in British Guiana from Great Britain and the British colonies amounted to 614, or 101,440 tons.

stricted to its own colonies, had the most disastrous influence upon the nation at large, and the fall in the exports and imports, taken together for the one year, amounted to no less than thirty-six millions. "Now in order to appreciate the misery that would ensue to this country from a similar stoppage in its export trade at the present time, we have only to recollect, that our exports, which in 1810 were forty-three millions, had in 1838 risen to one hundred and five millions; and that our imports, which in 1809 were thirty-one millions, had risen in 1838 to sixty-one millions; and that our population, which at the former period was seventeen millions, is now twenty-five. If such wide-spread and heart-rending misery was produced then, what would be its effects now, when the manufacturing establishments of the country have nearly tripled, and our manufacturing population has advanced in a proportion unheard of in any other country*?"

If we look at the political relations of Great Britain, it is only to be wondered at that hostilities have not broken out as yet with the continental powers or the United States, who are watching her with the greatest jealousy, ready to avail themselves of the first opportunity to commence the contest. Whenever this crisis may arrive, with all the predicted evils in its train, the colonies will remain under these circumstances the only resource upon which Great Britain can reckon for a market for its manufactures, and for an employment of her merchant navy.

This is the importance which is attached to the colonies, and therefore it should be the particular care of Great Britain to foster their interests, and to remedy the declining state of her emancipated colonies.

Sugar and coffee have become necessities of life; and it follows, that if our own colonies, under the present

* Blackwood's Magazine for December, 1839.

system of free labour, are not able to produce an adequate supply, recourse must be had to the tropical states of South America, where sugar, coffee, and molasses are cultivated by slaves. The prosperity, in a commercial respect, of the foreign slave colonies is materially increased, and American, nay even British capital, for the cultivation of sugar and coffee, has been invested to a great extent.

France and Holland have awaited the result of emancipation; and should any failure be connected with the free-labour system in the British colonies, they will pause before they tender emancipation to their slaves. Spain and the Brazils were never sincere in their promise to abolish the slave trade, or even to ameliorate the wretched condition of their slaves. Even if it were desirable, for the purpose of carrying into effect the philanthropic views of the nation, and for the sake of the emancipated labourer, and in order to indulge him in his habitual indolence, to sacrifice the British West India colonies, and to sink the capital which has been vested in their culture, their downfall would be the deathblow to the hope of suppressing the most frightful scourge, the basest of all trades, the trade in human beings, which under existing circumstances, has already received a new impetus. It is positively asserted, that notwithstanding all the exertions of Great Britain, and the vigilance of her navy, there are so many chances of a slaver escaping, that thousands of slaves continue to be imported in Cuba and Puerto Rico. The most effectual means of checking the slave trade is to render it unprofitable, and this may be effected by producing sugar by the labour of free men at a cheaper rate than it can be produced by the labour of slaves. The remedy is easy and obvious; it consists in a well-organized system of emigration from those places where there is a surplus population, and the inhabitants

of which are found to be best suited for a tropical climate.

From these general views, which affect the whole British colonies in South America, we revert to that magnificent province, to the description of which our foregoing pages were dedicated.

The last trace of slavery terminated in Guiana on the first of August 1838, by a bill having passed the court of policy, or legislative body, which had for its object the abolition of the negro apprenticeship on that day, unfettered by any restriction, and unconnected with any subsidiary enactments.

It was to be expected, that men who had been held, all their lives, to compulsory labour, should be disposed to relax, and in some instances totally abstain from it; but it was scarcely thought, that in a colony like Guiana, where labour was comparatively easy as contrasted with that on a sugar estate at the mountainous islands; and where, besides, every contrivance which machinery could devise to ease manual labour had been introduced,—that the failure of crops would have been so frightful. The first decrease arose from unfavourable weather, and from the circumstance, that the negro, unaccustomed to the new state of things, did not understand his new position: but it soon became evident that an irregularity of labour existed, and that the planter could not be certain of the same number of labourers in the field two days together; and many of the negroes, after working for a short time, left their work in order to follow their own inclinations. Another diminution arose from the indisposition of the women to attend to field work; and though on many of the estates, throughout British Guiana, a fair portion of labour was obtained, the decrease in 1838, as compared with the average crop of the six previous years, was 9664 hogsheads

of sugar. The deficiency in the exports of the first quarter of the year 1839, as compared with that of 1838, amounted to 1238 hogsheads, and was ascribed to the excessive drought, which lasted for upwards of seventy days without respite, in consequence of which the savannahs, creeks, or lakes, were dried up, and the trenches, having no supply, were exhausted ; while the sugar-canes were left uncut from the impossibility of conveying them to the works. The decrease in export for Demerara and Essequibo continued, and amounted, during the second quarter of 1839, as compared with the average quantity of the corresponding quarters of 1831, 1832, and 1833, to 4473 hogsheads of sugar, 2565 puncheons of rum, 4086 hogsheads of molasses, and 576,060lbs. of coffee: however, "the lengthened drought of the last and beginning of the present quarter would have caused diminished crops in Essequibo and Demerara under the most coerced system of labour. The coffee-berry is fixed, and a large harvest is anticipated." Thus reports Governor Light to the Marquis of Normanby, on 16th of July 1839. The exports during the third quarter, namely, from the 6th of July to the 10th of October, as compared with the average quantity of the corresponding quarters of 1831, 1832, and 1833, prove unfortunately a decrease of 7720 hogsheads (12,660,800lbs.) of sugar, 2116 puncheons of rum, 7309 hogsheads of molasses, and 1,271,878lbs. of coffee. The deficiency in the coffee crop after the large harvest which three months previously was anticipated, is startling, and is decisive of the proof, that not only the unfavourable season, but the general idleness and want of labour had a great share in the unfortunate results of the first year of freedom.

On the causes which produced that deficiency, I can-

not do better than quote the opinion of one of the ablest statesmen of the present time :—

“I am not disposed as a general proposition to refer this falling off in the produce to the want of adequate wages as its cause. Many vexatious disputes have no doubt arisen: the proper rate of wages was all to seek: the engagements and obligations of slavery had left strong traces in the habits and minds both of employer and negro; the one, with little reason, expected that the negro was, at all events, to carry on the cultivation of sugar; while the other, with as little right, thought he was, in any case, to remain in undisturbed possession of his large provision-ground. But a larger or more general cause had led to the decline of cultivation of sugar and coffee. * * * *

“A few acres of ground will produce provisions for a family with some surplus to sell at market, and bring home manufactured goods; the negroes who earn high wages, buy or hire plots of land, and refuse to let their daily labour for hire.”

To this circumstance, coupled with the indolence to which a great part of the negroes are prone, must be ascribed the want of continuous and regular labour; and consequently the deficiency in exports amounted, at the close of the year 1839, to 467,480*l.*, as compared with 1838, which year in itself left a deficiency in Demerara alone, exclusive of Berbice, to no less an amount than 930,000*l.* as compared with 1837. The conclusion is fallacious, that supposing the exports of sugar for the year 1839 reach only 35,000 hogsheads, the returns in money will be larger than when the produce was at its greatest extent. The very important fact, that the expenses of producing a hogshead of sugar are increased in equal

ratio to its higher value in the market, does not leave sufficient profit to the planter to counterbalance the diminished quantity of his produce. Experienced planters fear that the falling off in the crops in the present year will be much greater, since the labour which the planter was able to procure was only applied to the cutting of the ripe canes, while planting, drainage, and other labour for securing future crops were neglected; and it is therefore to be foreseen that the cultivation of the soil, which has been already neglected, will in a short time be entirely abandoned, if some remedy be not devised to replace those labourers who have become independent, or follow other pursuits than field labour in order to procure their livelihood.

An unlimited and free emigration alone is able to rescue British Guiana from its rapid decline. Emigration alone will enable us to reap all the advantages which this truly magnificent colony offers; a colony, which as at present situated, exports with a population of 100,000 labourers 35,000 hogsheads of sugar; while Jamaica, with 440,000 labourers, produces only 53,100 hogsheads; and Barbadoes, with 90,000 coloured labourers, 23,500 hogsheads; a fact which forcibly points out the superior fertility of British Guiana. This colony surpasses equally in imports every other in the British West Indies, and the import of goods of British manufacture amounted in 1836 to £5 14s. per head, and have probably risen in 1839 to £10 per head.

If the misery which would be inflicted upon the large manufacturing towns might be calculated from the effects which the stoppage of the export trade caused in 1810 and 1811, the prospects of the manufacturing districts in England, in the case of the breaking out of any war with Europe or with the United States, are distressing.

It becomes therefore the double policy of Great Britain to foster the resources of her own possessions, in order to increase with her population the demand for her manufactured goods ; and the example of British Guiana, where in 1838, under the most adverse circumstances, the increasing demands for manufactured goods and other supplies had occasioned an additional tonnage inwards of 10,618 tons as compared with that of 1836, will point again to that colony as the mart where the manufactured goods of the mother country are likely to find the readiest sale. There is every fear that the growing manufacturing establishments on the continent of Europe may shut out British goods from the European market ; and how far the European powers are anxious to accomplish this, the Prussico-Teutonic commercial league and Russian ukases have sufficiently shown. In the colonies alone, from long-continued habits and connexions of their population, the supply of British manufactures meets no competition from foreigners.

In the British West Indies, Barbadoes is the only colony which is thickly peopled. Its population is computed at 104,000 inhabitants upon an area of one hundred and fifty square miles, or six hundred and ninety-three inhabitants to each square mile. The population is therefore in such a proportion, that the relation between the employer and the labourer is put upon a natural level ; and it is generally considered that in consequence the free labour system will best succeed in that colony. In order to accomplish the desirable object of raising British Guiana to the state of the island of Barbadoes with regard to its population, it remains to point out those sources from which labourers may be obtained, who are suited for working under a tropical clime.

Africa is the part of the world which for upwards of

three centuries supplied the colonies of European nations with labourers. Abounding in a population which, buried in the darkness of savage life, were divided in numerous tribes engaged in constant warfare with each other, we will leave the question entirely untouched, whether religion and civilization have gained by the drafts which European nations have made upon those unfortunate beings. The ties of relationship and country were not torn asunder for making them converts to religion and civilization; cupidity was the mainspring of those acts for which history will ever blush.

Plans have been proposed to establish steam navigation, and to invite the most intelligent natives of the African coast to visit Guiana, in order that they may judge for themselves whether it offer any advantages which cannot be procured in Africa; and communicate their experience to their own countrymen; by which means not only a stream of free emigrants might be obtained, but the success of this scheme would be equally calculated to further the views of civilizing Africa.

The short passage in steamers between the coast of Africa and Guiana, might induce many to give their assistance in getting in the crops, and return after having earned a sum of wages, which according to their idea renders them rich. The orderly and religious state of the indigenous labouring population in Guiana could not fail to have the best effects upon the minds of the newly arrived Africans; and at their return to their homes, with the good example of their black brethren in Guiana before their eyes, a powerful means would be given of disseminating religious principles and civilization among them. In this way the philanthropic views of Mr. Buxton and his coadjutors would be promoted. The planter in Guiana, however, could not calculate upon the

timely arrival of this assistance, which would be always subjected to circumstances and caprices ; and although many might settle permanently, and amalgamate with the existing creole race, this process is too slow to warrant the expectation of much benefit for the colony. The most important question to decide in adopting such a plan as an auxiliary scheme of providing Guiana with the necessary labour is, whether it would meet the approbation of the British Government ?

If the question be calmly considered, the plan appears plausible, and deserves to receive the approbation of the British Government, much as it might be opposed, for well-founded reasons, to the entire transfer of Africans to an American colony. Under their protection, measures might be adopted to facilitate this periodical emigration ; and its very nature, that not a permanent settlement, but merely their labour for a certain period is aimed at, excludes even the shadow of compulsion. Ireland, and several districts on the continent of Europe, offer similar examples ; and the assertion of the same right which the Irish labourer has at his option, if he considers himself wronged by his employer in England, might be applied in a still higher degree to the African, who offers his temporary labour to the colonist.

The peculiar situation of Great Britain in whatever relates to the suppression of the slave trade, makes it, I fear, impracticable to recruit at the coast of Africa for permanent settlers. Whatever might be the advantages which might accrue to the African races from a permanent settlement at Guiana, the evil genius of the slave trade has spread its wings over benighted Africa, and the best intentions for the amelioration of its barbarous population run the risk of being accused of selfish views. The plans of the African colonization

society share a similar suspicion, and are said to be undertaken merely as the first germs of African colonies under British sway. The treasures of the soil, of which that vast region might be made the depository, and the reward of industry and social amelioration which await the African from the realization of Mr. Buxton's plans, are as much exposed to the mistrust of other European nations, as the scheme of transferring the African for the same purpose to Guiana, where there is a field sufficiently extensive for millions to reap the fruits of their industry and the blessings of the Christian religion and civilization, and where the savage would advance in the career of civilization with greater rapidity than could ever be expected in Africa.

More effective measures however are requisite, than those offered by the prospect of distant success in recruiting labourers from Africa, in order to arrest the present decline of our colonies in the West, and to stay the increase of the slave trade, which in consequence of that decline has received a new impetus. I need only to point to Cuba and Puerto Rico for the proof of the latter assertion, where American and British capital reap all the advantages of a continued slave trade and an ample supply of labourers. The prosperity of these colonies is unfortunately built upon the downfall of the British colonies, suffering as they do the most urgent want of labourers for their rich and luxuriant lands; and the only hope which is left for averting this rapid decline of the colonies, is the proposition of introducing a number of Indian labourers, called Hill Coolies. It appears that this poor race has been subjected to the most abject state of degradation; and if we can believe the public accounts, want prevailed in the British Indian possessions in 1838 to such a degree, that five hundred thousand of these miser-

able beings are said to have died of hunger. They migrate in India annually in large numbers in search of employment, which appears to be precarious, while, if successful, their earnings yield a bare subsistence. It was therefore imagined by some parties interested in British Guiana, that if these Hill Coolies, who were starving, were to emigrate to Guiana, where an unlimited demand for labour would ensure them high wages, they would not only profit themselves, but also the colony which was to receive their labour. Four hundred and thirty-seven Coolies embarked, therefore, in Calcutta, of whom sixteen died on the voyage, and two fell overboard in a violent gale; while four hundred and nineteen landed in Guiana. Their terms of contract were five years, service for wages of five rupees monthly, payable in dollars at the exchange of two rupees per dollar; they were to be supplied daily with provisions, and annually with clothing; as also with medical attendance and medicines.

It is much to be regretted that no proper selection was made among those who offered their services, and that necessary precautions were not taken at their arrival to prevent the diseases, which more abundant food, change of climate, herding together in one room in lieu of separate houses, and working at the fields without being inured to the climate, were likely to cause. If some regulation had been in operation for that purpose, it is not likely that the sickness which spread so widely and proved so fatal to the Coolies would have occurred*. It was in consequence, that the commissaries appointed by the Governor

* According to the official returns of the stipendiary magistrate, dated November 1st, 1839, the number of deaths which had occurred among the Coolies since they landed amounted to sixty-three males and three females.

of British Guiana to inquire into the state and condition and general treatment of emigrants, recommended that all emigrants, on their arrival in the colony, should not be permitted to be located on any estate, or elsewhere, until the agent for emigrants, or some other person appointed for that purpose, first see and ascertain that the dwellings to be appropriated for their reception are in every way suitable and comfortable; that the labour required of them should be apportioned to their several circumstances; that they should not be called upon to perform a full day's work for several months after their arrival; and if practicable, the wages allowed to them should not be less, in proportion to the labour performed, than is paid to the other labouring classes of the community. This recommendation was adopted by the Governor, who observes on this subject, in his despatch to the Marquis of Normanby, dated Demerara, 14th October, 1839,—“The anxiety to meet the views of Her Majesty's Government, expressed by the community at large on the subject of immigration, will enable Your Lordship to assume any position in protection of immigrants you may think necessary. I have already given directions respecting the reception of immigrants introduced by private speculators, who have hitherto detained them on board till located. The harbour-master is instructed to secure immediate communication with the shore, and disembarkation within twenty-four hours of arrival in the river*.”

It cannot be denied that the loss of life by mismanagement at the first arrival of the Coolies proved serious to them as a body. Much of it was to be ascribed to the

* Parliamentary paper, “Hill Coolies, British Guiana,” ordered to be printed 21st of February, 1840, p. 45.

difficulty of inducing them to submit to timely remedies, and to the experience of medical men ; but this aversion has been overcome, and wise regulations with regard to their welfare have produced happy results. Indeed it is evident, that with the exception of the African, they appear to be better qualified as labourers in Guiana than any other individuals. It is represented by official reports that every attention is paid to render them comfortable, and from all the information which was procured by the commissioners appointed for the purpose of inquiring into their present state, it appeared that they had considerably improved since their arrival. They execute their work with a cheerfulness not to be exceeded in any part of the world ; many of them say, " We feel so content and comfortable here, that if our families were with us, we should prefer remaining in this country. We get more food and are better taken care of than in our own country." Anunto Ram, the head Sirdar, an intelligent man, and who has recently married a young woman from a Coolie family on this estate (Highbury in Berbice), remarks, " I have only my father and my mother in India, and I will go to Calcutta at any time my master wishes, and return with plenty of these people : they would be glad to come here*."

In comparing the mortality since their arrival with the Europeans, it is as one to three ; their blood is purer than that of the negroes, and the observations of the colonial surgeon on the cases from Bellevue is, that the same sort of sores in a negro would not have been cured so easily†. Indeed Dr. Smith, of whom Governor Light observes, that " his character and principles place him

* Parliamentary paper, " Hill Coolies, British Guiana," p. 8.

† Ibid. p. 4.

above all suspicion of expressing an opinion respecting the Coolies from interested motives," reports to him, "I beg leave to say that I entertain a more favourable opinion of the constitution of the Coolies, in reference to their adaptation to this climate, than any other class of immigrants whom I have met in the colony. Of the thirty Coolies, including the interpreter and two cooks, placed under my charge, none have been attacked since the 7th of June with the intermittent fever, the endemic of British Guiana; nor do any seem to have suffered prior to that period from this cause. This community, when compared with the Maltese and Portuguese immigrants, is worthy of note." * * * *

"The uncommon rapidity with which most of those severe cases (of ulceration) progressed to a favourable termination, is a negative proof of the non-predisposition of the Coolies to the disease generally termed in this colony 'constitutional ulcer,' while it affords strong evidence of the great restorative powers of their constitutions, surpassing that of every other class of labourers whom I have had occasion to treat for the same disease in this country*."

Governor Light, in a despatch to Lord John Russell, dated 6th of December 1839, says—

"It is certain that Christianity is beginning to have its effect on the Coolies: those who were in the colonial hospital at first required their food at the hands of persons of their own caste; in a few days they lost that feeling; when prayers were read in the hospital by the attendant clergyman, they were attentive and respectful hearers. More than one, on his death bed, received the consolation of the Christian minister, at their request; and one particularly, in his dying moments, told the clergyman he

* Parliamentary paper, "Hill Coolies, British Guiana," pp. 13, 14.

was happy, and prepared to go to God, from what he had heard him say*." The concluding paper of these interesting despatches, which refer to the state and condition of the Hill Coolies in British Guiana, affords high satisfaction; namely, a general return compiled from the stipendiary magistrate's monthly reports, respecting the Hill Coolies, dated the 1st of December, 1839, from which we learn that no death had occurred, and that the returns are highly favourable for the past month, not exhibiting a single case of serious illness; and among those reported sick, but few had been more than one day in the hospital: no instance had occurred of any Coolie having left his estate to prefer a complaint; nor had the district magistrates, on their periodical inspection, any grievance brought to their notice†.

This is a document, which, in connection with the foregoing extracts, will prove the incalculable benefit which would accrue to thousands, nay millions, if it should seem good to Her Majesty's Government to permit a further introduction of Coolies into British Guiana. Christianity would receive its numerous converts, and a body of useful labourers would be introduced, who by constitution appear to be admirably adapted for the colony.

It is not probable that any number of emigrants which are likely to arrive in British Guiana would reduce wages. For want of labour, thousands of acres of the most fertile land have been abandoned. The whole sea-coast of the Berbice river, and between this and the Corentyn, was once in cultivation; and the number of abandoned estates in the Corentyn alone amounts to fifty-eight out of eighty.

* Parliamentary paper, "Hill Coolies, British Guiana," p. 51.

† Ibid. p. 55.

The British side of the Corentyn has only three estates, and from information which Governor Light received on the spot, the same advantages of rich alluvial soil fit for sugar cultivation are offered for sixty miles above the extreme estate, Skeldon*, and might average one hundred thousand hogsheads of sugar. The cultivable soil on the east bank of the Berbice river is equally rich for a hundred miles above Mara, thirty miles from New Amsterdam†. The Dutch formerly cultivated the banks of the Essequibo a hundred miles above its embouchure; if we except the three islands at the mouth of the river, cultivation does not extend at present five miles beyond its mouth. The same remarks apply to the rich coast land of the rivers Pomeroon and Marocco. But without extending the cultivation, it requires thousands of labourers to restore the sugar cultivation, which has suffered within the last two years. Indeed British Guiana wants a population of fifty-five millions of inhabitants, to people it as thickly as Barbadoes; there is therefore sufficient scope for an unlimited number of emigrants, without supplanting or competing with those who still remain engaged in tilling the soil.

The Coolies who are starving in their own country, and who are qualified by constitution and habits for the task, are still the most eligible labourers for Guiana; and although Government appears to be averse, for reasons which have been assigned, to transfer them from India to British Guiana, still those reasons are not so well founded as to enforce acquiescence. It depends upon the Government to devise the more efficacious and more simple measures which would remove the present

* Skeldon produced during the period of apprenticeship of the labourers from eight to nine hundred hogsheads of sugar.

† Parliamentary papers relative to the West Indies, Part I. 1839, p. 279.

objections. A new system of slavery can never rise again in a British colony; and the best argument in favour of enabling the crowded population of India to take advantage of the high wages of Guiana, lies in the unrivalled fertility of the soil, the British capital ready to be embarked to call forth the fruits of that fertility, and the wish of the inhabitants and those interested in the colony to adopt whatever the British Government has to propose for the advancement of emigration.

“The experience of the past, the fears for the future, will enable your Lordship to fix any condition for protection of emigrants in this colony. ‘Give us the means of keeping up our present cultivation, and we will accede to every wish of Her Majesty’s Government,’ is the general sentiment of the respectable portion of the community.*”

There are many authenticated instances on record which directly contradict the statements which have been made in England;—that the labourers in British Guiana were not liberally treated by their employers, who seemed disposed to oppress them, and thus prevent their taking the full advantage of their freedom. I choose, however, only the two following, as a proof that emancipation is producing its effects without opposition. Sixty-three labourers, the greater number of whom are headmen and mechanics, purchased, in November 1839, the estate Northbrook, on the east coast of Demerara, consisting of five hundred acres of land, for which they paid ten thousand dollars (equal to two thousand pounds sterling), and they were enabled to pay the purchase-money principally from their savings, since they obtained freedom on the first of August 1838. The labourers of Mr. Blair in the county of Berbice, bought the estate No. 6, or

* Governor Light’s Despatch to the Marquis of Normanby, dated 14th of October, 1839.

Bel-Air, with plantain cultivation and a large dwelling-house, for fifty thousand guilders (equal to three thousand five hundred pounds sterling).

Would our labouring classes in Europe be ever able to amass riches sufficient to become landed proprietors? Doomed to pine and toil in poverty, in rags, and hardships, their only landed possession is likely to be the grave which closes their misery. Would that they availed themselves of the advantages which a colony like British Guiana offers to them!

I cannot but insert here, in its place, the opinion of a man, who, for his piety and learning, is an ornament to the Church over which he presides as prelate:—

“I have been much struck, as I passed from parish to parish (in British Guiana), with the appearance of the people, with the respectability of their dress, and with the quietness and propriety of their demeanour. Their behaviour at the consecration of the several churches, and chapel-schools, and burial-grounds, and whilst partaking in or witnessing the rite of confirmation, was serious and becoming; whilst the promptness and largeness of their pecuniary subscriptions to the several places of public worship and religious instruction manifest the piety of their feelings, and the personal comfort of their present condition. At one temporary chapel of ease, the sum of fifty pounds was collected for the purchase of an organ, in the course of two hours from the time it was mentioned to them. At the church of St. Swithin's no less a sum than thirty joes (equal to forty-seven pounds sterling) was raised for the inclosure, with iron rails, of the tomb of their deceased minister; a proof not less of pecuniary competence than of a tender and grateful recollection: and at the Kitty chapel-school the liquidation of a debt of one hundred and fifty pounds sterling has been under-

taken by the people of the surrounding estates, to secure its immediate consecration. At St. Saviour's, on the Aberdeen estate, Essequibo, the labourers alone on six of the neighbouring estates contributed towards the erection of the chapel-school upwards of three thousand three hundred and ninety-four guilders, equal to two hundred and forty-two pounds sterling.

“When the labouring classes of any community can lay by so largely, and spend their earnings so holily and usefully, there must be a spirit working within them, which under judicious and affectionate guidance will settle down into a habit of contented and steady industry.*”

Can civilized England offer so bright an example among its labouring population as is here recorded of the people of British Guiana?

And why are not such advantages to be offered to the crowded population of India, the poor starving Coolie, who, reclaimed from human misery, may become as useful a citizen as many of the present labourers, the former neglected slaves of British Guiana? They are seeking employment to save themselves from starvation. A climate similar to that of Calcutta, and wages three times as high as they can ever obtain at home, instruction in the Christian religion, and competency, are offered to them as inducements to dispose of their labour to a British colony; and in order to satisfy the most scrupulous, all arrangements about their conveyance, the contracts for their employment, their housing, food, clothing, and whatever may be connected with their welfare, is left to the arrangements of the Government, and is to be conducted by their agents at the expense of the colony. The

* A Charge delivered to the clergy of the English Church in British Guiana, by the Right Reverend William Hart, Bishop of Barbadoes and the Leeward Islands. Demerara, 1839, p. 7 to 8.

conveyance from Calcutta to Guiana is less, by about one-fourth, than the voyage from Liverpool to Australia ; and should the projected communication between the Atlantic and Pacific Ocean, by means of the Isthmus of Darien, be realized, and steam navigation come into operation, Georgetown in Demerara may be reached in twenty days from Calcutta.

The negroes captured in slave ships have been hitherto carried for adjudication of the mixed commission, to the colonies of foreign powers, as to Surinam, Cuba, and the Brazils. The miseries experienced by those in Cuba are appalling. According to the late expositions of Mr. Turnbull, the poor captured Africans, if emancipated at Havannah, were handed over to the Spanish authorities, who hired them out for seven years to the best bidder. The necessary consequence was, that the party who engaged their services had not even an interest in keeping them alive after the lapse of that period, and they lay under no obligation, either legal or conventional, to support them when disabled by sickness or accident. Nay, it is asserted, that when death occurred among the slaves at the plantations where the emancipated African was hired, his name was substituted in the bill of mortality, and he remained a slave for life under the denomination of him who died in reality. According to the old system, these unfortunate captives, if even nominally free, were instantly hurried into an abyss of misery more deplorable and more desperate than that of the regularly imported African*.

Indeed, the apprehensions of the British Government, that their policy in putting down the slave-trade would be

* Travels in the West, Cuba ; with Notices of Porto Rico, and the Slave Trade. By David Turnbull, Esq., M.A., London, 1840.

exposed to suspicion, by making large addition to their rich colonies of the negroes captured in slave-ships, and that they might be told that Great Britain was indirectly recruiting her own possessions with compulsory labour by the very means which they employed to suppress the traffic of other nations,—ought to be waived, after the exposition of the atrocious system which is pursued in Cuba by the Spanish authorities. Of all the governments who have promised their co-operation to put down the horrible traffic in human beings, Great Britain alone has acted honestly and strenuously to effect it. There can be no doubt that these unfortunate rescued beings would be better treated in every respect if they were brought to British Guiana, which province has the additional recommendation of being within reach of a voyage of only a few days, and the cost of the bounty paid for captures would be readily reimbursed by the colony; while they would thus be placed under British law and protection, and not be subjected to a hopeless condition, and to the abuses of the word emancipation in a Spanish colony or in the Brazilian territory.

The expenses for transport and maintenance of captured slaves, who are sent annually from the Bahamas to Honduras, might be materially lessened to Government if they were transmitted at the expense of the colony to British Guiana. The population at the Bahamas must be ample enough, otherwise these Africans would not be sent to Honduras.

A new hope has arisen to the colonists of Guiana of increasing the population of that province by coloured emigrants from the United States, where in spite of the clamour of liberty and equality, people of colour are oppressed and despised. A local or voluntary subscription immigration society has been formed for that purpose;

and the arrival of two delegates, chosen and appointed by a general meeting of the free coloured population of the city of Baltimore and state of Maryland, in order to ascertain the character of the climate of British Guiana, its natural productions, and the political and social conditions of the coloured inhabitants of the province, will, it is hoped, have the best effects in inducing the wronged race in the United States to migrate to British Guiana, where there is no distinction of colour, where they may participate in the same esteem and the same public rights which are in the reach of the European or any other emigrant.

The colony offers them other advantages. The climate is well adapted to their constitutions ; and with industrious habits, an independence may be acquired in a shorter time than in any other part of the world ; and here the blessings of education, and full liberty to worship the Creator according to the dictates of conscience, may be procured unfettered, and without reference to race or complexion.

One of the great advantages which is likely to arise to the colony from the migration of American labourers to British Guiana, is that it will exercise a favourable effect on the other labourers in the colony. The task which the American emigrants perform in Trinidad amounted in one instance to three times the quantity of labour formally extracted from the unwilling slave ; and it is stated that this produced a favourable effect on the other labourers on the estate where the American emigrants were employed.

The planter has been hitherto at the mercy of the labourer, who, well aware that his occupation was in full demand, used no exertions to obtain the approbation of his employer. If he was discharged, he was sure of being received with open arms at the neighbouring estate. This

will in some respect be remedied by the arrival of American emigrants, or by a greater supply of free labour; and if the present labourer do not wish to verge on a state of barbarism, and to relinquish his comfortable house and bed, his showy dress and little luxuries, he is in self-defence obliged to adopt more industrious habits. I think that competition, more than any other means, will induce the indigenous labouring classes to settle down into steady habits of industry.

The indolence of the aboriginal inhabitants of Guiana, the Indians, and their present wandering habits, have presented great obstacles to the colony. This aversion of accepting employment from the colonists may have arisen, in a great measure, from the impositions to which they were formerly exposed, and where for the sake of a few glass beads, knives, &c., to the amount of a few shillings, they were kept at hard work for months. These impositions have now almost subsided, and the Indian population near the coast regions have become of great assistance to woodcutters, where they are employed in cutting and squaring timber, splitting shingles, &c. It is evident that they can labour, and the opinion which the most experienced woodcutters possess of the comparative value of Indians and negroes, as labourers, is in favour of the former. Practices have been in existence to secure an Indian as a labourer, which are by no means creditable. It would be advisable for his advancement in civilization to awaken in him a demand for decent apparel and other comforts of civilized nations; and by exalting him in his own opinion, and increasing his self-respect, his industry would be called forth to keep up the standing he had acquired.

The Indian, uncontaminated by European vices, and that bane, rum, is strictly moral. The European colo-

nists owe to these poor neglected races a large and long debt. They possessed themselves of their land; employed them, at their first arrival, on the cultivation of those fertile tracts; and when the African slave was substituted for the Indian labourer, and the necessity for the further services of the aborigines ceased, they were driven to the wilds of the interior and neglected. It is therefore a slight retribution for wrongs committed in former days by Europeans, to spread religious principles among the remnant of those once powerful tribes, and to convert them to that state of civilization which is in their reach.

Such philanthropic measures ought to be disinterested and merely to be considered in the light of repaying an old debt. But setting this aside, it offers advantages to the colony. The numerous tribes, the Macusis, Wapishianas, and Arecunas, who inhabit the tributaries of the upper Essequibo, are powerful; and if these poor beings are once converted—and we know that with religion, civilization and industrious habits go hand in hand—if not the present, the future generation may be induced, when thus qualified to come and settle among the colonists, to assist by the labour of their hands to the prosperity of the colony.

There are some serious impediments which have operated against the establishment of religious teachers amongst the races at our undetermined boundary; these obstacles it is hoped will be removed by wise provisions of Her Majesty's Government, whom the enslaved African already thanks for liberty, and upon whom the Indian, with equal confidence, trusts for his amelioration.

Great Britain is considered to be oppressed with a superabundant population; and the evils resulting from a mass of human beings restricted for their subsist-

ence to so narrow a space, might be counteracted, it has been thought, by emigration on a large scale. Ministers have already taken measures to effect this, and the new Colonization Commission is directed to afford every assistance for that purpose. The stream of emigration has been hitherto directed to New South Wales and the adjacent colonies, and has been accompanied by such a rapid development, that the number of emigrants, who amounted nine years ago to fifteen hundred, has increased in 1838 to fifteen thousand. Although Australia may offer advantages to the emigrant, the distance from the mother country; the circumstance that he who embarks for that distant colony tears himself for ever from his country and relations; the hostile tribes who oppose the settlers, cold winters, and, not least, the want of water in many districts—are points of weighty consideration. Even famine has not been unknown in some settlements; and the distress of the poor in October last year, and the extent of sufferings in consequence of scarcity, appear to have been appalling. In Hobart Town hundreds of children of both sexes, more than half-naked, starving at the most inclement season of the year from want of food, of fuel, of everything, were driven at daylight every morning forth from the nightly abode of undescribable wretchedness, to allay the cravings of hunger as means might be obtained. “Charity is the only resource; employment there is none to be obtained; and if there was, what labour could such children perform, so as to obtain for them even an adequate support*?”

Such misery is foreign to British Guiana. Throughout this rich and beautiful country there is an equable cli-

* Colonial Times (published in Hobart Town), October 8, 1839. See Colonial Gazette, February 5, 1840.

mate, and nature's bounty is so great that poor rates are unknown.

It is recommended to the Commissioners of Colonization, "that other circumstances being equal, the most desirable emigrants for New South Wales would be young married couples without children, and that the commissioners should aim at sending out young people with few children: but although the latter might eventually become a valuable acquisition to the colony, nevertheless the wants of the colonists for available labour were urgent, and required an immediate rather than a prospective supply."

Let us see what advantages British Guiana offers to a father of a large family, who has resolved upon emigration to distant parts. "Coffee plantations," it is observed in a colonial paper from Guiana, "are peculiarly fitted for giving employment to all ages of both sexes. The poor of Ireland, England, and Scotland, who have large families, in thousands of instances cannot avail themselves of the assistance of their children in the prosecution of their labour, because in country districts, particularly where agriculture is the chief employment, strong hands are required; so that the young and the weak are deprived of the opportunity to contribute anything towards their own support; but should a thousand poor labouring men, each with a family of ten, arrive in this colony, they could get work for every one of them that was able to pluck a coffee-berry. A coffee-picker, working at a reasonable rate, may earn a dollar a day; the business is so easy and light, that it could be performed by little boys and girls."

It is well known that a voyage to Australia occupies four to five months; Guiana may be reached in a sailing-vessel in five weeks, and a company called the West In-

dian Steam Navigation Company has lately been organized for opening a rapid, commodious, and regular communication with the rich and fertile colonies of the British empire in the west, by steamers, by means of which Demerara may be reached in the course of from sixteen to eighteen days. Generations may elapse before it will be possible to establish so rapid a communication with the colonies in Australia.

The equipment necessary for emigrating to British Guiana is trifling if compared with what is required for proceeding to New South Wales or the Canadas. The length and the severity of the winters, and the necessity of providing for the first year provision and clothing, as the resources of the soil can only be rendered available after a long period, are of weighty consideration.

The extensive landholder and manufacturer of sugar and the labourer constitute the two great classes of the population in British Guiana; the middle classes, so necessary to connect the two extremes, are almost entirely wanting. The emigrant who could command a moderate capital is best adapted for filling that void. His attention would be directed to the cultivation of such commodities as do not require vast outlays or much manual labour. In the preceding part I have already alluded to the cultivation of tea, spices of all kinds, tobacco, indigo, arnatto, the grape-vine, cocoa, rice, plantains, and maize, as demanding less capital and less manual labour than the sugar-cane. The extensive cultivation of tropical fruits, and chiefly the pine-apple, which with the approaching establishment of steam-boats might be imported extensively into Great Britain, would afford competence to many.

I revert again to the great importance of an extensive cultivation of cotton in Guiana, where there are lands

near the coast and in the interior for raising the finest kinds. If for political reasons it were desirable to counterbalance the great injury which must accrue to Great Britain from a decreased importation of that necessary article for manufactures, caused either by internal convulsions of the slave states, or by war with this country, Guiana offers an unlimited field for its cultivation. If such a period should ever arrive, the increased population which would be required to cultivate it to the demanded extent would cause a larger import of British manufactures, and indemnify Great Britain for the loss which she would sustain in the United States, where the capitalists of New England aspire already, by the establishment of extensive manufactories, to effect the exclusion of British goods.

It is much to be wondered at that the extraordinary facilities which the colony of British Guiana offers for colonization have not promoted an extensive emigration of industrious Europeans to this territory. The fecundity of its soil, and the great energy of vegetation between the tropics, ensures the agriculturist a succession of harvests; no winter interferes to impede his labour, no blighting hurricane thwarts his prospects, no earthquake spreads horror and desolation over the scene of his industry. A uniform climate reigns throughout the year, and the soil possesses unequalled richness, and extends for several hundred miles from the coast, washed by the Atlantic, to the sources of those rivers, which, if population could be planted on their banks, would offer means for the maintenance of millions, and facilities for the most extensive inland navigation.

We know, from the history of former and modern times, that countries have sunk in commercial respect, whose internal communication was rendered difficult, although

their fertility was great. The facility which the rivers of Guiana afford for inland navigation is one of the greatest recommendations of this colony. The rivers of Essequibo, Demerara, Berbice, and Corentyn may be navigated inland by schooners or steam-boats, unobstructed, to a distance of from fifty to one hundred and twenty miles, where the rapids and cataracts offer the first impediment to further advance. But as this fertile colony offers so many inducements to settlers, there is every hope, that as the population and cultivation of the interior increase, these impediments may be overcome as easily as those which the St. Lawrence offered to the first settlers in Canada.

A short portage of about seven to eight hundred yards separates the basin of the Amazon from that of the Essequibo. During the rainy season, the river Amazon and the upper Orinoco may be reached from Demerara entirely by inland navigation. So extensive is the water communication of these fertile provinces, that with a little trouble the inland navigation might be extended to Santa Fé de Bogota, and even to the Pacific on the west, and to Buenos Ayres on the south. This is not a visionary scheme: while at the Rio Negro, I met a trader from Matto Grosso who had descended the Madeira with a cargo, which he offered there for sale at the small villages along the Rio Negro. He informed me, that departing from Matto Grosso on the Madeira, they enter the Mar-more and its tributary the Guapore, when they drag their canoes about three miles over land to the Agua-pekí, which flows in the Jaura and Paraguay. The river Napo offers communication with Quito, the Ucayali with Cuzco, the Huallaga with Lima. Ascending the Rio Negro, and entering the Orinoco by the Cassiquiare, its tributary the Meta offers an uninterrupted navigation to

New Grenada, and within eight miles of Santa Fé de Bogota. Did not British Guiana possess the fertility which is its distinguishing feature, this inland navigation alone would render it of vast importance; but blest as it is with abundant fruitfulness, this extensive water communication heightens its value as a British colony.

Why, then, it may be asked, is Guiana thus stationary in the scale of advancement and emigration? The answer to such a question is simple. Decried with the greatest injustice as unhealthy, no inducement has hitherto been offered to emigrants to select it as the field of their industry and profitable occupation. But if Government were to direct a just share of public attention to this great field for the reception of the surplus population, and its fertility were better known, many would no doubt avail themselves of the advantages which the colony offers. It has been proposed that the land, the title to which has been vested in the Crown, be henceforward sold, and the price applied towards defraying the necessary cost of emigration. This plan has much to recommend it: it has been of immeasurable benefit to Australia, where it has been in operation; and similar advantages might be expected were it extended to Guiana. Lands have been hitherto granted for provisional occupancy or for wood-cutting, but with better prospects for the colony ready purchasers might be easily found*.

Such a measure I am happy to say is now in contemplation. An ordinance has been proposed by Her Majesty's Government to the legislative body of British Guiana, for encouraging the introduction of labourers in husbandry into that colony, and a certain sum is to

* The original price of Crown lands is ten guilders (equal to 14s.) per acre. It is, however, open for competition, and left to the highest bidder.

be appropriated for advancing emigration from Her Majesty's revenue within that colony. Agents are to be appointed beyond the seas, except within the limits of the East Indian company's charter, at any port or place on the western or eastern coasts of the African continent, or at the island of Madagascar. For every able-bodied labourer who lands at British Guiana a certain bounty, according to the average length of the voyage, is to be paid out of the reserved fund ; and all labourers, who, on their arrival in the colony, are not immediately provided with the means of employment, shall be provided with wholesome food and convenient lodging on shore, until the means of earning their own subsistence can be procured for them.

Were the exclusive clauses not in existence, the welfare of British Guiana would have been founded upon a firm basis by this ordinance. Still the hope remains that such a desirable boon may yet be granted to the colony.

It is a great mistake to believe that the heat of the climate renders Europeans unable to labour in the tropics. I have seen the Spanish labourers in Puerto Rico working as arduously in the field as the African labourer, although I was told that some of them had only lately arrived from Spain. It is undenied, that the lower classes of Spanish creoles in Puerto Rico undergo exposure to the alternation of rain and sunshine as well as the African creoles, and I am not aware that the Portuguese and Maltese who arrived in Guiana, suffered materially from the climate.

Europeans would be particularly qualified for working in coffee, cocoa, spice, and other plantations, where shady trees protect them against the full influence of the sun ; or if their periodical daily labour were restricted to three hours in the morning and two in the afternoon, I have

little doubt that they might be employed with advantage, and without danger to their constitutions.

If emigration were made attractive to those ill-rewarded artisans and mechanics, who, with the best inclination to work, are scarcely able to earn a miserable subsistence, they might be induced to emigrate to Guiana, where they would supersede their less skilful competitors, who would have to resort to field labour for subsistence. Cabinet-makers, painters, carpenters, glaziers, shipwrights, ropemakers, coopers, blacksmiths, bricklayers, plumbers, &c. would find profitable employment, and an ample field for their industry.

With the introduction of industrious emigrants from the mother country, and the establishment of colonies in the interior, cultivation will gradually extend, and by this advancement, two points of great importance will be secured; namely, with the spread of civilization, the wealth of the colony must increase; and while those labours which are necessary to reclaim the fertile soil from nature and to make it available, are conducive to the health of those who are thus employed, the example of industrious Europeans must have a high moral influence upon the few aborigines who still inhabit British Guiana; and although the latter may be averse at present to cultivate the coast-lands, I have no doubt they would tender their labour if a colony or settlement were formed in the interior.

Below Aritaka, on either side of the Essequibo, there are districts of no small extent of fertile lands, with extensive forests of excellent timber-trees. The regions between the sand-hills and the first rapids in the river Demerara, those between the Berbice and Corentyn, along the banks of the small river Wicki, the savannahs of

which recommend themselves, like those of the Wieroni, as pasture-grounds ; the hilly tracts in the vicinity of the first falls in the river Berbice ; the fertile regions between the upper Berbice and the river Essequibo in the vicinity of Primoss,—are all well calculated for colonization. The soil is various and highly productive, and the expenses connected with clearing the ground would be repaid by the value of the timber cut down.

The mouth of the Corentyn offers a most eligible situation for the foundation of a township, in the vicinity where at present the plantations Eliza and Mary, and Skeldon are situated. The tract of land south of Skeldon is virgin soil of high fertility. Fears are entertained that the increase of Crab Island will destroy the navigable channel to the port of Berbice : if such an unfortunate event should take place, the Corentyn will be of additional importance.

With the cultivation of these waste tracts, the spiritual and social welfare of the province would spread in equal ratio ; and Great Britain will be more than rewarded for the inducement which she may give to emigrants to Guiana. She imports, to the amount of millions, from the Brazils and the United States, articles which might be produced in her own colonies, if the present prejudices of introducing field labourers from the East be overcome and secured by wise regulations. There are boundless regions capable of maintaining thousands of poor beings who are struggling in the East with famine and all the evils in its train. The imports of British manufactures would increase with the population and the prosperity of the colony. Thousands, who in Great Britain depend upon the poor funds for mere subsistence, would in so rich a colony as Guiana become independent, and ap-

pear in the list of those who contribute to the consumption of British manufactures, and thus add their share towards the increase of national prosperity.

Guiana bids fair ere long to become a focus of colonization ; and with her fertility, her facilities of water communication, she may yet vie with the favoured provinces of the eastern empire, and become, as Sir Walter Raleigh predicted, the El Dorado of Great Britain's possessions in the West.

THE END.

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DEDICATED, BY EXPRESS PERMISSION, TO
HIS GRACE THE DUKE OF DEVONSHIRE.

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CHARLES THE FIRST

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To the Secretary of the Royal Astronomical Society
Thomas Galloway, M. A., F. R. S.

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I take Sir the liberty of recommending these proposals to your benevolent attention.

I am Sir with much respect

Your most obedient humble servant

John James Wild

Civil Engineer of Greenwich.

London, 5 August 1850.

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